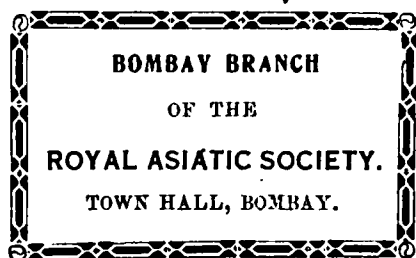


JUGONNATH SUNKERSETT
PRESENTATION.

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE
ACADEMIES OF STOCKHOLM, UPSAL, TURIN,
LISBON, LUND, BERLIN, PHILADELPHIA, AND
THE NAT. HIST. SOCIETY OF PARIS;
PRESIDENT OF THE LINNÆAN SOCIETY.

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THE FIGURES BY

JAMES SOWERBY, F.L.S.

—“VIRESCERE ACQUIRIT EUNDO.”—Virg.

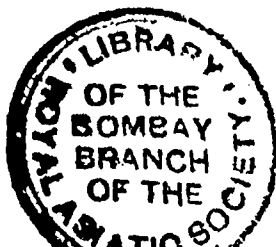
VOL. X.

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649
887.



Sibthorpia europaea.

SIBTHORPIA europæa.

Sibthorpia, or *Cornish Money-wort*.*DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cal.* in 5 divisions. *Cor.* 5-cleft, irregular. *Stam.* approaching each other in pairs. *Caps* compressed, inversely heart-shaped, of 2 cells, with transverse partitions.

SPEC. CHAR. Leaves kidney-shaped, somewhat peltate, crenate.

SYN. *Sibthorpia europæa.* *Linn Sp. Pl.* 880. *Huds.* 276. *With.* 556. *Hull.* 138. *Dicks. Dr. Pl.* 76.

S. prostrata. *Salisb. Ic.* 11. t. 6.

Alsine spuria pusilla repens, foliis Saxifagæ aureæ. *Raii Syn.* 352.

THIS curious and most distinct genus was named by Linnæus in honour of Dr. Humphrey Sibthorp, successor to Dillenius in the Botanic chair at Oxford. His son, the late Professor John Sibthorp, has richly earned his inheritance of the honour, by his indefatigable zeal in the pursuit of the same science, to which indeed he fell a sacrifice. To the writer of this, no stranger to his merit and abilities, the arrangement of his Grecian treasures is now entrusted. His knowledge of the plants of his own country is displayed in a work published not very long before his death, and often cited by us, the *Flora Oxoniensis*.

The only genuine species of *Sibthorpia* is that before us, so that the specific character is now superfluous. It grows in shady places, and about springs in Cornwall and Devonshire, where Mr. Sowerby gathered this specimen. It flowers from June to August, and is perennial.

Root fibrous. Stems prostrate, creeping to a great extent, branched, slender, and delicate, leafy, hairy. Leaves alternate, on footstalks, horizontal, kidney-shaped, with shallow distant notches, hairy. Flower-stalks axillary, solitary, short, single-flowered, hairy as well as the calyx. Corolla pale yellow, with a purplish tinge in the three upper segments. Stamina inclined to each side in pairs, very short. Stigma peltate. Capsule containing but few seeds.





Senecio paludosus.

SENECIO paludosus.

Marsh Groundsel. Bird's-tongue.

SYNGENESIA *Polygamia-superflua.*

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, scaly at the base ; scales dead at the tip.

SPEC. CHAR. Radius spreading. Leaves sword-shaped, sharply serrated, somewhat woolly beneath. Stem perfectly straight.

SYN. *Senecio paludosus.* *Linn. Sp. Pl.* 1220. *Huds.* 366. *With.* 725. *Hull* 187. *Relh.* 317.

Virgæ aureæ sive Solidagini angustifoliæ affinis, Lingua avis Dalechampii. *Raii Syn.* 176.

NO plant more rare than the present has hitherto appeared in our work. Mr. Hudson admitted it on the authority of Ray ; but the place of growth he mentions, near Streatham ferry in the Isle of Ely, has many a time been searched in vain, so that most botanists have supposed something else had been mistaken for it. Mr. Relhan however mentions Littleport, Chatteris, and Burwell fens as its stations ; and our specimen was found at Wangford near Brandon, by Francis Eagle, jun. Esq. and communicated by the Rev. Mr. Hemsted. It grows in deep inaccessible fens and ditches, flowering in June and July.

Root of many long simple fibres, perennial. Stem from three to six feet or more in height, perfectly straight, upright and simple, leafy, round, hollow, striated, loosely clothed with cottony down, which likewise invests the young leaves and flower-stalks. Leaves scattered, numerous, sessile, lanceolate, acute, sharply serrated ; narrow and entire at the base ; smooth above ; pale, and generally downy, beneath. Flowers in a kind of terminal corymbus, the lowermost stalks arising from the bosoms of the upper leaves. Bractææ awl-shaped. Flowers above an inch in diameter, bright yellow Florets of the radius linear, five-toothed, spreading, but little recurved. Receptacle set with short hairs between the seeds, as is often the case in many plants in which that part is said to be naked, for these hairs are very different from the long chaffy scales to be found in some genera. The seed-down is rough.

651.
579.



*Butomus
umbellatus.*

BUTOMUS umbellatus.

Flowering Rush.

 ENNEANDRIA *Hexagynia*.

GEN. CHAR. *Cal.* none. *Petals* 6. *Capsules* 6, superior, with many seeds.

SPEC. CHAR.

SYN. *Butomus umbellatus*. *Linn. Sp. Pl.* 532.
Huds. 174. *With.* 393. *Hull.* 88. *Relh.* 164.
Sibth. 134. *Abbot.* 91. *Curt. Lond. fasc.* 1.
t. 29.

Butomus. *Raii Syn.* 273.

THE elegant *Butomus*, the only British plant of the 9th Class in the Linnæan System, grows in ditches and the margin of rivers and ponds, chiefly on a gravelly soil, flowering in July. Like several other of our aquatics, it may be ranked among the most ornamental flowers.

The root is tuberous, horizontal, and perennial. Lower part of the herb entirely under water. Leaves all radical; erect, near three feet long, linear, entire, triangular, smooth, pointed, flat in the upper part. Stalk solitary, simple, naked, round, smooth, taller than the leaves. Umbel terminal, simple, of many flowers, with brown sharp lanceolate bractæ among its flower-stalks. Flowers large, variously shaded with rose-colour, purple and white, of six spreading elliptical petals, the three innermost smaller than the rest. Stamina nine, spreading, equal, white, with red antheræ. Germens six, red, standing in a circle, with short recurved styles, and notched stigmas.

652
789.



Ranunculus
acris.

Ranunculus acris L.

RANUNCULUS acris.

Upright Meadow Crowfoot.

POLYANDRIA Polygymia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* five, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. *Calyx* spreading. Flower-stalks round and even. Leaves in three divisions, with many segments; the upper ones linear.

SYN. *Ranunculus acris.* *Linn. Sp. Pl.* 779. *Huds.* 241. *With.* 506. *Hull.* 121. *Relh.* 214. *Sibth.* 174. *Abbot.* 122. *Curt. Lond. fasc.* 1. t. 39. *Mart. Fl. Rust. t.* 30. *Woodv. Suppl. t.* 246.

R. pratensis erectus acris. *Raii Syn.* 248.

COMMON in meadows and pastures. Frequent with double flowers in gardens. It is perennial, and flowers in June or July.

Root tuberous, with many long simple fibres. Stem upright, two feet high, round, clothed with close-pressed bristles, branched above. Radical leaves on long upright hairy foot-stalks, in three or five deep divisions, which are variously lobed and cut; stem-leaves nearly sessile, and less cut; the uppermost in three entire linear lobes. Flower-stalks round and even, not furrowed, clothed with close hairs. Calyx hairy, spreading, not reflexed. Petals of a shining yellow, the nectary covered with a notched scale.

This cannot be confounded with any other wild crow-foot. The scale of the nectary at once distinguishes it from *R. auricomus*; the spreading calyx from *bulbosus* and *hirsutus*; the round flower-stalks from both those and *repens*; while the smooth seeds prevent our mistaking it for any species that has rough or muricated ones.

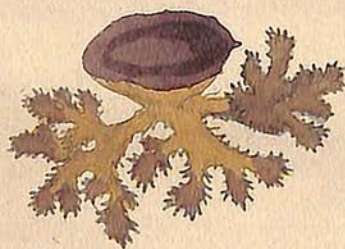
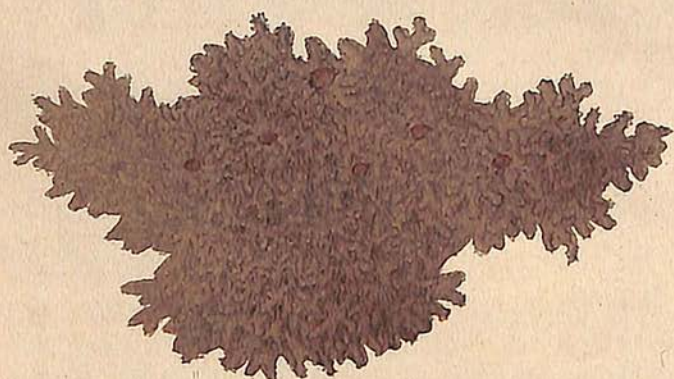
The name expresses its acrid qualities. It is generally supposed to be an useless weed. We have already hinted, p. 515, that such plants may not be altogether so, when duly combined with more insipid ones.

652
789.



Ranunculus
acris.

Des. & Mac. Del. & Sculp. J. B. de la Roche sculp.



Parmelia Fahlunensis.

LICHEN fahlunensis.

• *Flat Black Rock Lichen.*

CRYPTOGAMIA Alga.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated; its segments linear, forked, flat, of a shining olive black; coal-black and naked beneath. Shields dark brown.

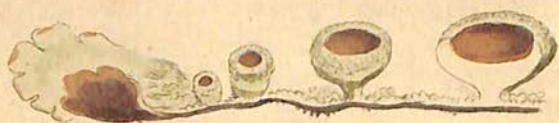
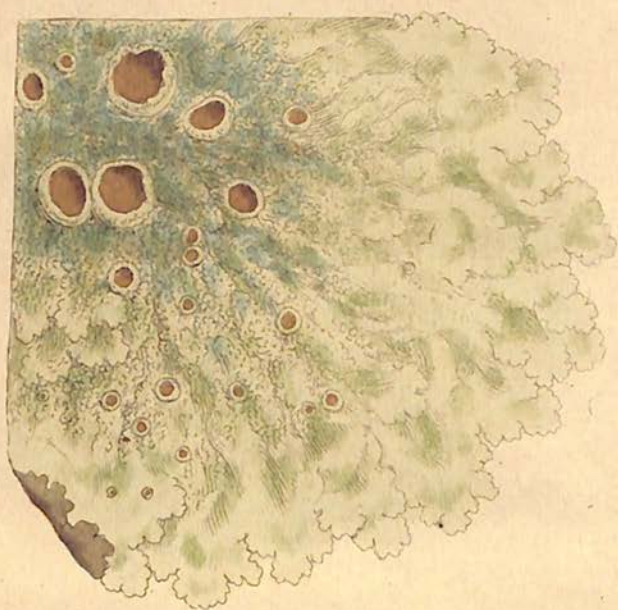
SYN. Lichen fahlunensis. *Linn. Sp. Pl.* 1610.
Huds. 532. *With.* v. 4. 30. *Hull.* 293. *Dicks.*
H. Sicc. fasc. 14. 23.

Lichenoides tinctorium atrum, foliis minimis crispis. *Dill. Musc.* 188. t. 24. f. 81.

Squamaria Fahlunensis. *Hoffm. Pl. lich.* v. 2.
45. t. 36. f. 2.

LINNÆUS named this Lichen from having found it plentifully on the dreary rocks about the copper mines of Fahlun in Sweden, where he tells us very few of the genus grow, either on stones or trees. Mr. Hudson had it from Lancashire and Scotland. Our specimen was gathered by Mr. Griffith in North Wales.

It grows in spreading flat patches, attached to the rocks rather by its under surface than by any perceptible roots, for it is quite smooth beneath, by which, if other marks were wanting, it might at once be known from every variety of *L. omphalodes*, t. 604. The under side is quite black, but not destitute of polish. The whole plant indeed is almost black when dry. When moist it assumes a very dark olive hue, smooth and shining. The segments are linear, numerous, flat or rather concave, by no means convex, by which last mark it is essentially distinguished from *L. stygius*. The edges of the segments form an undulating line, and are black, either entire or finely toothed and granulated. Shields numerous, of a deep blackish chestnut, having when young an elevated crenate margin, which is obliterated by age.



Parmelia caperata?

LICHEN caperatus.

Wrinkled Sulphur Lichen.

CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, creeping, lobed, wrinkled, of a pale sulphur-colour ; its margin rounded and crenate. Shields bright chesnut, with a mealy edge.

SYN. *Lichen caperatus.* *Linn. Sp. Pl.* 1614. *Huds.* 543. *With. v.* 4. 58. *Hull.* 297. *Relh.* 433. *Sibth.* 330. *Abbot.* 264. *Dicks. Dr. Pl.* 22. *Lichenoides crustâ foliosâ, ex cinereo et luteo virescente supernè, infernè nigrâ et lævi.* *Raii Syn.* 73.

L. caperatum, rosacè expansum, e sulphureo virens. *Dill. Musc.* 193. *t.* 25. *f.* 97.

Platisma caperatum. *Hoffm. Pl. lich. v.* 2. 50. *t.* 38, 39. & 42. *f.* 1.

THIS is one of our most handsome Lichens. It occurs not unfrequently on large trees, forming a sulphur-coloured patch, conspicuous among the grey or green hues that usually clothe their bark ; but the fructification is extremely rare. Mr. Sowerby and Mr. D. Turner gathered our very fine specimen in Cornwall, on large granite stones. Hoffmann's *t.* 39 is one of the most admirable figures any where to be seen, and much preferable to what he has copied from Jacquin's *Collectanea*.

L. caperatus is so named from its being transversely wrinkled, like a goat's horn, which is scarcely to be seen but in old specimens, and is not peculiar to the species. It forms patches often a foot in diameter, lying close to the bark or stone, destitute of hairs on both sides ; of an elegant pale sulphur-colour above, frequently powdery or granulated ; black beneath. The shields are a little elevated, externally of the colour of the leaf, smooth towards the base, mealy or granulated at the margin ; their inside of a bright reddish chesnut.



Silene acaulis by J. S. Sauer.

VERONICA Becabunga.

Brooklime.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Clusters lateral. Leaves elliptical, flat. Stem creeping.

SYN. *Veronica Becabunga.* *Linn. Sp. Pl.* 16. *Sm. Fl. Brit.* 20. *Huds.* 5. *With.* 15. *Hull.* 4. *Rch.* 5. *Sibth.* 5. *Abbot.* 3. *Curt. Lond. fasc.* 2. *t.* 3. *Woodv. Med. Bot. t.* 7.

V. aquatica rotundifolia, *Becabunga dicta*, minor. *Raii Syn.* 280.

BROOKLIME is every-where to be found in ditches and limpid streams, most commonly the companion of Water Cresses; with which it is gathered for medical purposes, and both together with Scurvy-grass enter into that nauseous composition called spring-juices, supposed to be a powerful anti-scorbutic.

Roots perennial, of long simple fibres. Stems procumbent or floating, taking root from their joints, branched, round, leafy, smooth, and shining, as is every other part of the herb. Leaves on short stalks, elliptical, blunt, slightly serrated, of a bright green, somewhat fleshy. Clusters axillary, opposite, erect, longer than the leaves, composed of numerous blue flowers, in perfection about June or July. Bractæ linear-lanceolate, shorter than the partial flower-stalks. Segments of the calyx ovate, acute, shorter than the corolla. Capsule cloven.



Sedum dasyphyllum.

S E D U M dasyphyllum.

*Thick-leaved Stonecrop.**DECANDRIA Pentagynia.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves opposite, ovate, obtuse, fleshy. Stem weak. Panicle glutinous.

SYN. *Sedum dasyphyllum*. *Linn. Sp. Pl.* 618. *Huds.* 197. *With.* 428. *Hull.* 99. *Relh.* 179. *Sibth.* 144. *Abbot.* 98. *Curt. Lond. fasc.* 3. t. 26.

S. minus, circinato folio. *Dill. in Raii Syn.* 271.

THIS pretty little *Sedum* was pointed out to us at Clifton, near Bristol, by Mr. Dyer. It grows on walls or rocks, and is often to be seen about London, as at Hammersmith, Kew, and Chelsea. When once introduced into a garden it propagates itself freely upon walls, waste places, and about garden-pots. We believe it to be perennial, though it so frequently disappears in one spot, and re-appears in another, that we have sometimes thought it only biennial. It flowers copiously in June.

Root of small white fibres. Stems thread-like, creeping, weak and prostrate, being quite weighed down by the leaves, except the flowering branches, which are panicked, downy viscid. The leaves are opposite, closely imbricated, sessile, ovate, glaucous, extremely thick and juicy; those on the flowering branches only being alternate. Panicles terminal, spreading, of a few flowers. Calyx downy, viscid. Petals white, with a purple keel. Antheræ dark red. Capsules often more than five.

637.

859.



Rhinanthus Crista-Galli.

Wm. 1797. Published by R. J. Smith.

RHINANTHUS *Crista-galli.**Yellow Rattle.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Cul.* inflated, 4-toothed. Upper lip of the *Corolla* compressed. *Caps.* of 2 cells, blunt, compressed. *Seeds* imbricated, flat.

SPEC. CHAR. Upper lip of the corolla arched. Calyx smooth. Leaves lanceolate, serrated.

SYN. *Rhinanthus Crista-galli.* *Linn. Sp. Pl.* 840. *Huds.* 268. *With.* 542. *Hull.* 137. *Relh.* 238. *Sibth.* 192. *Abbot.* 134. *Curt. Lond. fasc.* 5. *t.* 43. *Mart. Fl. Rust. t.* 148.

Pedicularis, seu Crista-galli lutea. *Raii Syn.* *284.

FREQUENT in meadows and pastures, flowering in June. Root fibrous, annual. Stem upright, a foot or more in height, branched, smooth, quadrangular, leafy, often spotted with red. Leaves opposite, sessile, lanceolate, heart-shaped at the base, rough, very sharply serrated. Spike terminal, leafy. Flowers not always strictly opposite, on short stalks. Calyx bladderly, with strong ribs and a net-work of veins, of a pale greenish yellow, smooth, permanent; its orifice contracted. Corolla twice as long as the calyx, yellow, its upper lip arched, compressed, tipped with 2 blue spots; its lower in three equal lobes. Antheræ awn-less, but very hairy. Capsule dry and membranous. Seeds with a membranous border.

This plant, though to be found in almost every hay-stack, is supposed not to be of any peculiar agricultural use.

We cannot clearly distinguish which of Ehrhart's 2 species of *Rhinanthus* (see Dr. Hull's *Flora*) this may be. Ours has generally a spotted stem, and the calyx is smooth, if by that term is meant its being free from hair, *glaber*; if free from inequality, *lævis*, it is not so. The style is in an early state shorter than the corolla, afterwards often longer.

We know not Dillenius's plant, the β of Hudson, nor whether it may be Ehrhart's *R. major* or *minor*.

658

871



Linaria vulgaris.

Bot. 1177. Coloured by J. Smith. Printed.

ANTIRRHINUM Linaria.

Yellow Toad-flax.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-leaved. *Cor.* with a prominence at its base pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves linear-lanceolate, crowded. Stem erect. Spikes terminal. Flowers imbricated. Calyx smooth, shorter than the spur.

SYN. *Antirrhinum Linaria.* Linn. *Sp. Pl.* 859. Huds. 273. With. 551. Hull. 139. Relh. 243. Sibth. 195. Abbot. 138. Curt. Lond. fasc. 1. t. 47. Mart. *Fl. Rust.* t. 93. Woodv. *Suppl.* t. 221.

Linaria lutea vulgaris. Raii *Syn.* *281.

THE uniformity of our plan requires the exhibition of this plant in a natural state, though we have already figured its curious variety the *Peloria*, t. 260. We have the less reluctance to add ours to the many plates of *A. Linaria* already existing, as we have the good fortune of being able to represent from nature one of its flowers only, the lowermost on our spike, advancing a step towards the *Peloria*. This, if any new proof were wanting, would absolutely decide that production to be merely a variety.

The common Yellow Toad-flax grows frequently in hedges and the borders of fields, in a barren gravelly soil, and though often a troublesome weed, must be allowed to be a flower of great beauty. It blossoms in June and July. The root is creeping, whitish, a little woody. Stems erect, two feet high, round, leafy, scarcely branched. Leaves linear, or inclining to lanceolate, entire, spreading, very little glaucous, thickly set without any order. Spike terminal, erect, many-flowered. Bractæ lanceolate. Calyx smooth. Corolla large, bright yellow, ringent, closed, with a downy orange-coloured mouth. Spur awl-shaped, pointed, five times as long as the calyx.

639.

198.



Scabiosa arvensis.

Herb. n. 1799, published by J. S. P. 1814.

SCABIOSA arvensis.

Field Scabious.

TETRANDRIA Monogynia.

GEN. CHAR. *General calyx* of many leaves; *partial* double, superior. *Receptacle* chaffy or naked.

SPEC. CHAR. *Corollas* 4-cleft, radiating. *Leaves* pinnatifid, cut. *Stem* bristly.

SYN. *Scabiosa arvensis*. *Linn. Sp. Pl.* 143. *Sm.*
Fl. Brit. 170. *Huds.* 62. *With.* 183. *Hull.*
 33. *Relh.* 60. *Sibth.* 55. *Curt. Lond. fasc.*
 4. t. 13. *Dicks. H. Sicc. fasc.* 12. 6.

S. major communior, folio laciniato. *Raii Syn.* 191.

COMMON in pastures, but more especially in corn-fields, where it flowers in July, mixed with the Cockle and the Great Ox-eye, contributing more to the ornament of the country than to the profit or honour of the farmer.

Root perennial, long, spindle-shaped, mostly branched. Stem about a yard high, branched, rough with bristles which rather point downward. Leaves for the most part hairy; the radical ones numerous, lanceolate, more or less serrated, as are also the pinnatifid (and frequently cut) upper leaves. Branches spreading, each terminated by a solitary flower, composed of very numerous tubular four-cleft pale-purple florets, of which the outermost are larger, labiate, and give the whole a radiated figure. Stamina capillary, with flesh-coloured antheræ, abortive in the outermost florets. Seed one to each floret, quadrangular, crowned by the permanent partial calyx.

These flowers, held over the smoke of a pipe of tobacco, in a few minutes become of a most beautiful green, from the alkaline nature of the smoke, to which their delicate purple is peculiarly sensible.

• 660.

204.



Galium verum.

Galium verum. L. 1753. p. 104. t. 1. f. 1.

G A L I U M verum.

*Yellow Bed-straw.*T E T R A N D R I A *Monogynia.*

GEN. CHAR. Cor. of one petal, flat, superior. Seeds two, roundish.

SPEC. CHAR. Leaves 8 in a whorl, linear, channelled, entire, rough. Flowers in dense panicles. Fruit smooth.

SYN. Galium verum. *Linn. Sp. Pl.* 155. *Sm. Fl. Brit.* 178. *Huds.* 69. *With.* 191. *Hull.* 36. *Relh.* 66. *Sibth.* 59. *Abbot.* 34. *Curt. Lond. fasc.* 6. *t.* 13. *Mart. Fl. Rust. t.* 54. *Dick's. H. Sicc. fasc.* 17. 4.

G. luteum. *Raii Syn.* 224.

FREQUENT in the borders of dry fields, and on little bushy hills, which it enlivens with a profusion of bright yellow flowers, diffusing a honey-like rather oppressive scent, in the months of July and August.

Root perennial, creeping, of a tawny hue, evincing its affinity to Madder. Stems about a foot and half high, seldom quite upright, unless supported; branched at the base; panicked above; roundish, smooth. Leaves eight in each whorl, pointing downward, linear, entire, tipped with a small point, dark green, rough above. Flower-stalks much branched, corymbose, many-flowered, clustered together into a long dense leafy panicle. Flowers yellow. Stamina very short. Antheræ turning brown in decay. Fruit smooth, blackish.

The power of this herb to coagulate milk is well known, and Gerarde tells us the best Cheshire cheese in his time was made with it. Ray relates, on the authority of an old Danish writer, that a pleasant acid liquor is procured from the flowers by distillation in a moderate sand-heat. From some handfulls of the flowery tops the quantity of 3 ounces of this liquor, a kind of vinegar, was obtained.



Asperuga procumbens.

Asperuga procumbens. L. Sp. Pl. 1034. t. 322. f. 1.

661

272.

ASPERUGO procumbens.

German Madwort.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* of the fruit compressed, its two margins flat and parallel, sinuated.

SPEC. CHAR. *Calyx* of the fruit flattened throughout.

SYN. *Asperugo procumbens.* Linn. *Sp. Pl.* 198.

Sm. Fl. Brit. 220. *Huds.* 82. *With.* 231.

Hull. 47. *Relh.* 79. *Fl. Dan. t.* 552.

A. vulgaris. *Raii Syn.* 228.

THIS is a plant of very rare occurrence. Ray mentions Boxley in Sussex, and the Holy Island, as its places of growth. He says also "near Newmarket, where I hear it is now lost." The specimen before us was found at Wangford near Brandon by Francis Eagle, jun. Esq., and sent by the Rev. Mr. Hemsted*. It is an annual plant, and flowers in July.

The root is small and slender. Herb rough and sticking to the hands or clothes by means of small hooked spines, like *Galium Aparine*; hence it has been called *Aparine major*, and Great Goose-grass. Such of these hooks as stand upon the stem point downward; those on the leaves forward, or towards the point of the leaf. The stems are prostrate, square, leafy. Leaves two three or four together, not exactly opposite, spreading when the plant is supported, when it lies flat they are directed upwards from the ground. They are oblong or lanceolate, and entire. Flowers small, axillary, solitary, on short stalks, deep blue. Corolla in 5 rounded segments, its orifice closed with small purple concave blunt valves. Stamina in the tube, very short. After flowering, the flower-stalks are reflexed, the calyx much enlarged, compressed, enfolding 4 seeds, which are smooth in a young state, rugged when ripe.

* Mr. Hemsted informs us the *Senecio paludosus*, t. 650, was gathered in Lakenheath fen, not far from Wangford, by himself and Mr. Eagle.



Anchusa officinalis.

ANCHUSA officinalis.

*Common Alkanet.**PENTANDRIA Monogynia.*

GEN. CHAR. *Cor.* funnel-shaped; its orifice closed with valves. *Seeds* hollowed out at the base.

SPEC. CHAR. Spikes imbricated, the flowers all on one side. *Bractææ* ovate. *Leaves* lanceolate.

SYN. *Anchusa officinalis.* *Linn. Sp. Pl.* 191. *Sm. Fl. Brit.* 214. *Fl. Dan. t.* 572.

A. tinctoria. *Woodv. Med. Bot. t.* 92.

Buglossa vulgaris. *Ger. em.* 798.

FOR this entirely new accession to the catalogue of British plants, we are indebted to the Rev. Mr. Thomas Butt, of Areley, Staffordshire, who found it plentifully, and to all appearance perfectly wild, on the links near Hartley Pans in Northumberland, and favoured us with living specimens. It is perennial, flowering in June and July.

Root spindle-shaped, black on the outside. Whole herb rough with bristly hairs. Stem about 18 inches or two feet high, erect, angular, leafy, a little branched, panicked at the top. *Leaves* alternate, lanceolate, acute, entire, scarcely at all waved or crisped in the margin; the upper ones ovate at the base. Spikes generally in pairs, revolute; all the flowers thickly set on one side, and pointing upwards. As the stalk lengthens, they become more remote. *Bractææ* ovate. *Calyx* deeply five-cleft. *Corolla* red at first, then deep purple, closed with hairy concave valves. *Seeds* brown, pointed, with a little space hollowed out at their base.

The whole plant is mucilaginous; but neither its sensible qualities, nor any effects it produces in practice, are sufficient to account for its ancient reputation as a cordial, which, as Dr. Woodville well remarks, (*Suppl. p.* 10), is rather to be attributed to the wine in which it was administered. It is necessary to observe that *t.* 92 of the *Medical Botany* represents our plant, the real *A. tinctoria* being very different. *T.* 214 of the *Supplement* to the same work seems rather *A. undulata* of Linnæus.



Saxifraga
umbrosa.

1799 Published by J. Smith, London.

SAXIFRAGA umbrosa.

*London Pride, or None-so-pretty.**DECA NDR I A Digynia.*

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Caps.* with two beaks, one cell, and many seeds.

SPEC. CHAR. Leaves obovate, bluntish, with a cartilaginous notched margin. Stem naked, panicled. Capsule superior.

SYN. *Saxifraga umbrosa.* *Linn. Sp. Pl.* 574. *Sm. Fl. Brit.* 450. *Wüh.* 403. *Hull.* 92.

Geum folio subrotundo minori, pistillo floris rubro.
Magnol. Hort. 88. t. 14. (majori) *Mill. Ic.* t. 141.
f. 2. *Dill. in Raii Syn.* 355.

IT is singular that this plant should have been omitted by Mr. Hudson. The authorities mentioned by Dillenius for its growing on several mountains in Ireland are indubitable; and to them may be added that of Mr. Lambert, who gathered this Saxifrage on Croagh Patrick in the County of Mayo, a conical hill observed by Mr. Kirwan to rise 2666 feet above the neighbouring ocean. Sir T. Frankland and Dr. White have gathered it in Thorp Arch woods, Yorkshire. Our specimen grew in a truly wild situation, on a rocky bank near a rivulet, half a mile west of Mrs. Foster's house in Hesleton Gill, betwixt Arncliffe and Horton in Craven, and was communicated by Mr. W. Bingley. It is perennial, flowering in July; and is well known in gardens, particularly for thriving in London better than most plants, where it flowers earlier than on its native mountains.

The leaves are all radical, growing in a rose-like form, on flat foot-stalks, obovate, quite smooth, with a hard whitish crenate edge, and often purple beneath. Stalk a span high, erect, panicled, many-flowered, red, hairy, with a few small alternate bractæ. Flowers upright. Calyx at length reflexed. Petals nearly elliptical, white or flesh-coloured, most beautifully spotted with yellow and dark red. Germen altogether superior, red. Capsule inflated, tipped with purple. It cannot be confounded with any other British species.



Sa. citranga cernua.
Rooting by the stem by J. Smiley London.

SAXIFRAGA cernua.
Drooping Bulbous Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* 5. *Caps.* with two beaks, one cell, and many seeds.

SPEC. CHAR. Leaves on footstalks, palmate. Stem bearing bulbs. Germen superior. Petals blunt.

SYN. *Saxifraga cernua.* *Linn. Sp. Pl.* 577 *Fl. Lapp. t. 2. f. 4.* *Sm. Fl. Brit.* 453. *Dicks. Tr. of Linn. Soc. v. 2.* 290. *With.* 405. *Hull.* 93.

MR. DICKSON first detected this rare alpine plant on the summit of Ben Lawers. The impossibility of procuring fresh specimens from thence has made us thankfully accept this from the garden of the Rev. Mr. Bale, F. L. S. at Withyam, Sussex. Though a cultivated one, it exhibits the true wild appearance, and agrees precisely with those from Scotland and Lapland. It is perennial, and flowers in July or August.

Root a small scaly bulb, throwing out branched black fibres. Stem four or five inches high, erect, round, leafy, mostly smooth, generally simple and single-flowered, sometimes branched. Leaves alternate, on footstalks, kidney-shaped, lobed in a palmate manner, a little succulent, smoothish; the upper ones bearing in their bosoms little purple scaly bulbs, which falling to the ground become new plants. Flower terminal, solitary, white, more or less drooping. Segments of the calyx elliptical, erect, clothed with glandular hairs. Petals obovate, blunt, often almost notched at the end, three-nerved, the nerves united above the base, obliterated before they reach the top. Germen entirely superior, green.

The figure in *Fl. Dan. t.* 390, seems rather to belong to our plant than *t.* 22, which last has acute petals, and always a simple stem. Linnæus did not distinguish them.



Juncus glaucus.



Not in 1799 list. by F. B. Smith.

J U N C U S glaucus.

Hard Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with one or three cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem naked, straight, glaucous. Panicle lateral, upright. Capsule elliptical, acute.

SYN. *Juncus glaucus.* *Sibth.* 113. *Sm. Fl. Brit.* 375.

J. effusus β . *Huds.* 149.

J. inflexus. *With.* 345. *Hull.* 75. *Relh.* 141. *Abbot.* 78.

J. acutus. *Raii Syn.* 432.

NOT uncommon in wet pastures, or on moist waste places by the sides of roads, flowering in July.

The roots are perennial, creeping, black. Stems about a foot and half high, upright, naked, rigid and very tough, round, striated, glaucous; tapering to a sharp point; clothed at the base with brown shining sheathing scales. Leaves like the stem, but shorter, and perhaps rather to be esteemed barren stems than real leaves. Panicle lateral, solitary, about half way from the root to the summit, much branched, spreading upwards. Leaves of the calyx awlshaped, striated. Stamina shorter than the calyx, with bright yellow antheræ. Capsule elliptical, sharp-pointed, brown, polished.

The glaucous colour and hard rigid texture readily distinguish this from the two more common rushes *J. conglomeratus* and *effusus*; yet Linnæus, as well as Hudson, confounded it with the latter. If no other mark were sufficient, the *effusus* may always be known from all our other *Junci*, by having only three stamina; an observation of Leers, which we have hitherto found invariably true.



Scirpus lacustris.

SCIRPUS lacustris.

Bull-rush.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1, beardless.

SPEC. CHAR. *Stem* round, naked. *Panicle* cymose, twice compounded, terminal. *Spikelets* ovate.

SYN. *Scirpus lacustris.* *Linn. Sp. Pl.* 72. *Sm. Fl. Brit.* 52. *Huds.* 19. *With.* 75. *Hull.* 13. *Relh.* 19. *Sibth.* 23. *Abbot.* 10.

S. palustris altissimus. *Raii Syn.* 428.

THE Bull-rush grows abundantly in clear ditches, streams, and the borders of lakes, flowering in July and August. Of its stems the rush bottoms of chairs are made; cattle in hard seasons will eat it, and it is also used for thatching and pack-ages occasionally, being of a soft pliant texture, totally destitute of the roughness, or cutting edges, of many grass-like plants.

Roots creeping under water horizontally, thick and strong. Stems upright, 4 or 5 feet, or much more, in height perennal, simple, naked, round, smooth, dark-green, very spongy and full of watery juice within, clothed at the base with several sheathing scales. Panicle doubly compounded in a cyme-like form, terminal, spreading; its branches very unequal, compressed, fringed towards their extremities, sheathed at their base with several unequal lanceolate chaffy bractæ. Spikes generally 2 or 3 together, clustered, ovate, brown, with a shining rusty tinge. Glumes concave, keeled, pointed, fringed, sometimes cloven, but with a serrated point in the cleft. Stamina not very long. Stigma three-cleft. Seed flat on one side, convex on the other, with 5 or 6 short rough bristles at its base, as in *S. maritimus*; t. 542.



GALEOPSIS versicolor.
Large-flowered Hemp-Nettle.

DIDYNAMIA *Gymnospermia.*

GEN. CHAR. *Cal.* five-cleft, awned. Upper lip of the *corolla* notched, vaulted ; lower with 2 teeth on its upper side.

SPEC. CHAR. Stem bristly, swelled below the joints. *Corolla* three times as long as the calyx ; its upper lip inflated.

SYN. *Galeopsis versicolor.* *Curt. Lond. fasc. 6. t. 38.*

G. cannabina. *With. 529. Hull. 132.*

G. Tetrahit β. *Linn. Sp. Pl. 810. & Huds. 257.*

Lamium cannabinum folio, flore amplo luteo, labio purpureo. *Raii Syn. 241.*

IN our 3d volume, p. 207, we have already promised a figure of this plant as a variety of *Galeopsis Tetrahit*, but we now assent to the opinion of those who judge it a distinct species. It is constant in its appearance and characters, propagating itself by seed: the *corolla* is 3 or 4 times as long as the calyx, large and swelling, with a much more inflated or hollow upper lip than in any variety of the *Tetrahit*; and, to common observers, the striking purple spot on the lower lip, so elegantly contrasted with the other yellow hues, at once distinguishes it. The leaves are also broader, and of a brighter paler green than in that species. The stem is much inclined to purple; the root annual; the flowers appear from June to September. It is found on a sandy, gravelly, and somewhat boggy soil in the north of England, and several parts of Norfolk, and is sometimes called the Bee Nettle. Our specimens were communicated from Castle Rising by the Hon. Mrs. Howard, and from near Birmingham by Mrs. Corrie. It is found plentifully at Ashill, Norfolk, by the Rev. Mr. Watts. It is easily raised from seed, and is by no means unworthy of a place in the flower-garden.



Veronica repens, published by F. G. L. L. L. L.

CORRIGIOLA littoralis.

Sand Strawwort.

PENTANDRIA Trigynia.

GEN. CHAR. *Cal.* inferior, of 5 leaves. *Petals* 5.
Seed one, naked, obtusely three-cornered.

SPEC. CHAR.

SYN. *Corrigiola littoralis.* *Linn. Sp. Pl.* 388. *Sm.*
Fl. Brit. 339. *With.* 318. *Hull.* 66. *Dicks.*
Dr. Pl. 61. *H. Sicc. fasc.* 14. 10.

MR. HUDSON was the original discoverer of this plant in England, but not till after the publication of the second edition of his *Flora*. He found it on Slapham sands near Dartmouth, Devonshire. The late Francis Borone gathered it on the beach near the tin mine at Helston, Cornwall; and from seeds communicated by him, the specimen here delineated was raised by Mrs. Kett in her garden at Seething. As it is not at all altered by culture, and Mr. Sowerby with Mr. Turner sought for the wild plant in vain this summer, we trust our figure will not be unwelcome.

The root is annual, and the flowers appear profusely in July and August. Stems numerous, spreading prostrate on the ground in every direction, like knot-grass; they are round, smooth, but little branched. Leaves alternate, linear-lanceolate, obtuse, entire, tapering at the base, glaucous, smooth, a little fleshy, with a pair of membranous stipulæ at their insertion. Flowers in terminal and lateral clusters, small, of a pearly hue, the leaves of the calyx being bordered with white, and the petals white also. Germen and antheræ purplish. Styles 3, short, spreading. Seed black and shining.

669.

572.



Polygonum
viviparum

Polygonum viviparum L.

POLYGONUM viviparum.

Alpine Bistort.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 segments, permanent. *Styles* 2 or 3. *Seed* solitary, angular, superior, invested with the calyx.

SPEC. CHAR. Stem simple, bearing one spike. Leaves lanceolate, their margin revolute.

SYN. Polygonum viviparum. *Linn. Sp. Pl.* 516. *Sm. Fl. Brit.* 428. *Huds.* 169. *With.* 383. *Lightf.* 206. *Hull* 86.

Bistorta minor. *Raii Syn.* 147.

β *B. minima alpina*, foliis imis subrotundis et minutissimè serratis. *Raii Syn.* 147.

A TRULY alpine plant, communicated fresh from a moist spot of ground a little below the Culms near Horton in Craven, by Mr. Bingley in July last. It is principally found in high pastures, or the moist fissures of rocks, Light-foot says in dry stony pastures, in the most mountainous parts of this island. I have gathered it near the top of Ben Lomond.

The root is tuberous and perennial. Stem about 6 inches high, erect, simple, leafy. Leaves narrow, on footstalks, linear-lanceolate, veiny, smooth (except sometimes beneath) their margins rolled backwards; the root-leaves are often shorter, broader, and finely serrated, as in the variety β, which has also a very dwarf stem. Spike terminal, slender, obtuse. Flowers reddish, with the proper number of stamina and styles belonging to the genus. The germen is acutely triangular. Seeds rarely perfected, for the lowermost flowers especially have their pistillum generally changed into a bud or bulb, which begins to throw out leaves even before it falls to the ground, and afterwards taking root, forms a new plant, as in many alpine vegetables.

In sensible qualities this species altogether agrees with the more common Bistort, *t.* 509.

670
1063.



Lathyrus
pratensis.

LATHYRUS pratensis.

*Meadow Vetchling.**DIADELPHIA* Decandria.

GEN. CHAR. *Style* flattened, downy above, broader upwards. Two upper segments of the *calyx* shortest.

SPEC. CHAR. Several flowers on a stalk. Tendrils mostly simple, each bearing two lanceolate leaves.

SYN. *Lathyrus pratensis*. *Linn. Sp. Pl.* 1033. *Huds.* 317. *With.* 633. *Hull.* 161. *Relh.* 273. *Sibth.* 223. *Abbot.* 157. *Curt. Lond. fasc.* 3. t. 44. *Mart. Fl. Rust. t.* 52.

L. luteus sylvestris dumetorum. *Raii Syn.* 320.

COMMON in meadows, pastures, hedges and bushy places, especially in wet situations, flowering in July and August.

Root perennial, creeping, propagating itself very fast by means of small fleshy tubercles. Stems weak, branching, two or three feet long, climbing, leafy, smooth, sharply angular but not winged. Leaves lanceolate, rather glaucous, smooth, in pairs on tendrils which are generally, but not always, unbranched. Stipulæ unequally arrow shaped, embracing the stem. Stalks very long, erect, bearing numerous large bright yellow flowers. Calyx hairy, its teeth tapering and sharp-pointed. Pods almost erect, black, smooth, holding about 8 or 10 seeds, but sparingly produced, the roots being so very prolific.

Mr. Curtis, on the authority of the ingenious Dr. Anderson, so well known by his agricultural works, (and who ought to be much better known as the author of several valuable inventions by which others have profited,) recommends this vetch for cultivation, as supplying excellent fodder both early and late in the season, making good hay, and thriving on a clay soil, where Saintfoin will not grow. He advises increasing it by first sowing the seeds, and then parting the roots.

671.

978.



Malva sylvestris.



Malva sylvestris. L.

M A L V A *sylvestris.*
Common Mallow.

MONADELPHIA *Polyandria.*

GEN. CHAR. *Cal.* double; the outermost of three leaves. *Seed-cases* numerous, circularly arranged. *Seeds* solitary.

SPEC. CHAR. Stem upright, herbaceous. Leaves with seven sharpish lobes. Leaf-stalks and flower-stalks hairy.

SYN. *Malva sylvestris.* *Linn. Sp. Pl.* 969. *Huds.* 307. *With.* 613. *Hull.* 155. *Relh.* 265. *Sibth.* 215. *Abbot.* 151. *Curt. Lond. fasc.* 2. t. 51. *Woodv. Med. Bot.* t. 54.

M. vulgaris. *Raii Syn.* 251.

THE common Mallow, so plentiful by road sides and in all waste places, needs little botanical illustration. Its upright bushy stem, and large purple flowers, which are produced in the greatest profusion, sufficiently distinguish it from the almost equally common *M. rotundifolia*. It is perennial, and may be found in blossom from May to September.

The root is spindle-shaped, branched, whitish. Stem very much branched and spreading, round, hairy. Leaves alternate, on foot-stalks, heart-shaped, plaited, roughish, divided into 7 crenate lobes; the upper ones are most deeply and sharply lobed. Flower-stalks clustered, hairy, single-flowered. Calyx hairy. Petals inversely heart-shaped, three or four times as long as the calyx, of a full rose-colour veined with deeper purple, smooth and shining, as is also the column of the stamina. Pollen whitish, large, as in all this tribe.

The whole herb, especially the root, abounds with a pure mucilage, and possesses the emollient qualities of the Marsh Mallow, *Althæa*, though perhaps in an inferior degree. It has however the advantage of being much more common, and within every-body's reach.

872.



JUNCUS campestris.

Hairy Field Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none.
Caps. superior, of 3 valves, with 1 or 3 cells.
Seeds several. *Stigmas* 3.

SPEC. CHAR. Stem leafy. Leaves flat, hairy. Spikes terminal, sessile and pedunculated. Capsules obtuse.

SYN. *Juncus campestris.* *Linn. Sp. Pl.* 468. *Sm. Fl. Brit.* 385. *Huds.* 152. *With.* 350. *Hull.* 76. *Relh.* 145. *Sibth.* 116. *Curt. Lond. fasc.* 2: t. 19. *Dicks. H. Sicc. fasc.* 14. 17.

Gramen exile hirsutum. *Raii Syn.* 416.

β *G. hirsutum elatius*, paniculâ junceâ compactâ.
Raii Syn. 416, the synonymys doubtful.

VERY frequent in dry barren pastures, where it flowers in April or May, and is rendered conspicuous by its large sulphur-coloured antheræ opposed to the dark copper-brown of the husks.

Root perennial, creeping. Stems 4 or 5 inches high, simple, straight, leafy, round. Leaves linear-lanceolate, acute, flat, entire, extremely hairy in the margin. Spikes terminal, for the most part standing on stalks, ovate, obtuse, erect, at length drooping, each consisting of about ten flowers, which are sessile, and furnished at the base with 3 or 4 torn bractæ. The calyx-leaves are lanceolate, pointed. Stamina short, equal. Style slender. Capsule obovate, obtuse, incompletely three-celled, containing only three seeds.

The variety β grows in turfy bogs, and is 12 or 15 inches high, more naked, with more thickly clustered spikes; but I have in vain sought, though with scrupulous exactness, for any specific difference in the structure of the fructification.



VERONICA hybrida,
Welch Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, 4-cleft, wheel-shaped; lower division narrowest. *Caps.* 2-celled.

SPEC. CHAR. Spikes terminal. Leaves opposite, elliptical, obtuse, unequally and bluntly serrated. Stem nearly upright.

SYN. *Veronica hybrida.* *Linn. Sp. Pl.* 14. *Sm. Fl. Brit.* 16. *With.* 12. *Hull.* 4.

V. spicata β. *Huds.* 3.

V. spicata Cambrobritannica, *Bugulæ subhirsuto-folio.* *Raii Syn.* 278. t. 11.

MANY have doubted whether this *Veronica* were really distinct from the *spicata* figured in the 2d plate of our work. It must be allowed the difference is not easily defined, and yet we believe them to be distinct. In size and appearance they differ considerably. *V. hybrida* is twice as large, with rougher stem and leaves; the latter are more strongly serrated or notched, of a much broader elliptical form, and of a more grassy green. The winged foot-stalk is common to both kinds. The stem in that now before us generally produces three spikes when luxuriant; the rudiments of the 2 lateral ones appear in our specimen in the bosoms of the upper leaves. It always grows erect. The root is creeping and perennial, and the flowers appear in July and August. We are certain by comparison of its being the plant intended both by Linnæus and Ray.

V. hybrida is a very rare species. Mr. Lhwyd found it in Ray's time on the side of a hill in Montgomeryshire called Craig Wreidhin.—Ours was gathered near Cartmel Wells Lancashire, on Humphrey head, a steep rock jutting into the sea, by Mr. Bingley. Mr. Crowe and Mr. Woodward observed this plant in the same place about 18 years ago.

674
1067.



Sonchus
arvensis.

SONCHUS arvensis.

*Corn Sow-thistle.**SYNGENESIA Polygamia-æqualis.*

GEN. CHAR. *Receptacle* naked. *Cal.* imbricated, swelling at the base. *Down* simple, sessile.

SPEC. CHAR. Flower stalks and calyx bristly, somewhat umbellate. Leaves runcinate, denticulated, heart-shaped at the base. Root creeping.

SYN. *Sonchus arvensis.* *Linn. Sp. Pl.* 1116. *Huds.* 337. *With.* 674. *Hull.* 177. *Relh.* 291. *Sibth.* 237. *Abbot.* 169. *Curt. Lond. fasc.* 4. t. 53.

S. repens, multis *Hieracium majus.* *Raii Syn.* 163.

THIS is a common and pernicious weed in corn-fields, though not of so general occurrence as the *S. oleraceus*. It is perennial, flowering in July and August.

Root creeping, milky, composed of oblong fleshy branches, which render it very difficult to be extirpated. Stem 3 or 4 feet high, erect, but little branched, roundish, hollow, leafy. Leaves runcinate, sharpish, smooth, fringed with little spinous teeth; the upper ones heart-shaped at the base, and embracing the stem; the uppermost of all entire. Panicle somewhat cymose or umbellate, terminal, of few flowers. The calyx, flower-stalks, and upper part of the stem are all clothed with spreading brown glandular bristles. Flowers very large and conspicuous, of a bright gold-colour, externally reddish. Each floret has a hairy tube. Seeds furrowed. Down smooth.

675.



CARDUUS heterophyllus.
Melancholy Thistle.

SYNGENESIA *Polygamia-aqualis.*

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves embracing the stem, lanceolate, ciliated, undivided or laciniated, very downy beneath. Flower mostly solitary, pedunculated.

SYN. *Carduus heterophyllus.* *Linn. Sp. Pl.* 1154.
Fl. Dan. t. 109.

C. helenioides. *Huds.* 352. *Lightf.* 457. *With.* 702. *Hull.* 179.

Cirsium Britannicum Clusii repens. *Raii Syn.* 193.

A NATIVE of rather moist alpine pastures in the north, sent from near Horton in Craven by Mr. Bingley. It is perennial, flowering in July or August.

Root creeping, tuberous, black. Stem 3 feet high, erect, for the most part simple and single-flowered, sometimes, as in our figure, two-flowered, round, furrowed, woolly, leafy. Leaves lanceolate, acute; naked and very smooth above; clothed with dense snowy down beneath; their margin fringed with a double row of small prickles; the radical ones stand on footstalks; the rest are alternate, embracing the stem with their heart-shaped base; some of the leaves are occasionally pinnatifid, which variableness in their form gave occasion to the name *heterophyllus*. The flower terminates the stem on an elongated stalk, and is large and handsome; it has often one little leaf close to its base; at first it droops, but is afterwards erect. (Calyx green, slightly downy, ovate; its scales lanceolate, upright, naked, keeled and brownish at their tips, each terminated by a very small spine. Stigma linear, cloven. Down of the marginal seeds merely rough, of the rest feathery.

C. helenioides of Linnæus differs widely from this, its stem being twice as tall, leaves more numerous, and never lobed. It bears four or more sessile flowers clustered together at the top of the stem, but half the size of ours, and is a stranger to our island.

676.



Helianthus scaberrimus L. f. *Helianthus*

PYRETHRUM inodorum.
Corn Feverfew. Scentless May-weed.

SYNGENESIA *Polygamia superflua.*

GEN. CHAR. *Recept.* naked. *Seeds* crowned with a membranous margin. *Cal.* hemispherical, imbricated with sharpish scales, bordered with a membrane.

SPEC. CHAR. Leaves sessile, pinnate, in many capillary segments. Stem branched, spreading. Crown of the seeds entire.

SYN. *Chrysanthemum inodorum*, *Linn. Sp. Pl.* 1253. *With.* 734. *Hull.* 184. *Relh. Suppl.* 1. 14. *Sibth.* 257. *Abbot.* 185.

Matricaria inodora. *Huds.* 372.

Chamæmelum inodorum annuum humilius, foliis obscure virentibus. *Dill. in Raii Syn.* 186.

VERY common in fields and by way-sides, especially on a gravelly soil, flowering late in Autumn.

Root annual, tapering. Whole herb almost destitute of any peculiar smell. Stem branched, spreading, leafy, angular, smooth. Leaves sessile, pinnated in a lyrate manner; their leaflets cut into numerous, very narrow, smooth, segments, each tipped with a little point. Flowers terminal, solitary, large, on naked stalks. Disk yellow, convex. Radius of many spreading elliptic-oblong white obtuse florets, each tipped with three teeth. Scales of the calyx smooth, surrounded with an equal narrow brown membranous border. Receptacle conical, blunt, naked. Seeds crowned with a membranous undivided border. Mr. Crowe has observed a variety with a multiplied radius.

The naked receptacle easily distinguishes this plant from every *Anthemis*, and the crowned seeds from *Matricaria*. By the crown being entire, not lobed, if other marks were wanting, it may be known from *M. maritima*, another species of *Pyrethrum*. We cannot help adopting this genus from Haller and Gærtner, as it is difficult to form any thing like natural genera in this order without adverting to the crown of the seed. The common Feverfew makes the third British species of *Pyrethrum*, having certainly the proper essential character, though Haller appears to have overlooked it.



LICHEN pertusus.
Pierced Lichen.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crustaceous, greyish white, polished. Shields aggregate, waxy, flesh-coloured, concealed in swelling, polished, clustered, perforated warts.

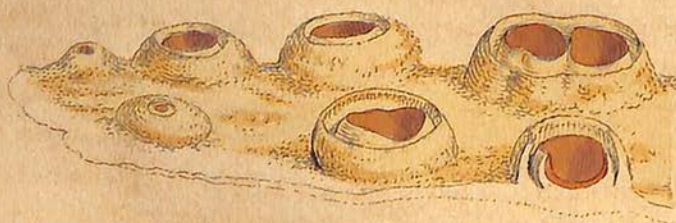
SYN. Lichen pertusus. *Linn. Mant.* 131. *Huds.* 525. *With. v. 4.* 15. *Hull.* 288. *Relh.* 421. *Sibth.* 317. *Abbot.* 261.

Lichenoides verrucosum et rugosum, cinereum, glabrum. *Dill. Musc.* 128. *t.* 18. *f.* 9.

NOT unfrequent on the trunks of trees in various parts of Great Britain, at all seasons of the year.

The crust is thin, smooth, polished, by no means powdery or leprous, of a grey or glaucous white, spreading over the bark, sometimes investing the smaller kinds of mosses as it goes, in patches 2 or 3 inches broad. The fructification is copiously produced, and lodged in numerous elevated crowded polished warts of the colour and substance of the crust, very irregular in their form, divided internally into several cells each cell marked by a little depressed perforation at the top of the wart communicating with its cavity. These cells are various in number, from 2 or 3 to 7 or more, sometimes however they are solitary. In each of them is lodged a waxy concave shield, of a pale flesh-colour throughout, lining the cavity. We have never seen any thing of the black powder within, mentioned by Weber. If his observations be correct, probably the seed ripens into that substance, or the shield in disease or decay may be changed to it.

L. inclusus, figured in our next plate, will be found admirably to illustrate the structure of this.



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LICHEN *inclusus*.*Covered Lichen.*

CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crustaceous, cream-coloured, polished.

Shields hollow, flesh-coloured, with a thin inflexed edge, each enclosed in a thick outer coat of the substance of the crust.

THIS new *Lichen*, which Mr. Sowerby has aptly named *inclusus*, was sent him from Teesdale forest, Durham, by the Rev. Mr. Harriman and Mr. Oliver. I have found it plentifully at Hafod, Cardiganshire, on trees upon the hill immediately before the eastern front of the house, but it appears to be a rare species, and hitherto unnoticed, unless it may have been taken for *pertusus* in an advanced state; indeed part of Dillenius's figure of that plant much resembles this. I have no doubt, notwithstanding, of their being perfectly distinct, though near akin.

The crust of *L. inclusus* is cream-coloured, not grey or glaucous, but in other respects like that of *pertusus*. Shields very numerous and crowded, but not aggregate; they are concave, flesh-coloured, but externally whitish, thin and incurved in the margin, so as to be almost membranous, and very brittle, in that part. Each is lodged in a globose cavity, formed out of the crust, and rising altogether above its general surface, like the shields of Lichens in general, with a thick inflexed edge, but totally distinct and separate from the edge of the actual shield. Very rarely two of these cavities are crowded as it were into one, but this is in a very different mode from the union of the cells in the warts of *L. pertusus*, and the perforation at the top is always much wider than in that species.

670
1815.



Ceratophyllum
submersum.

van der Meer, Dijkster, & de Vries, 1815.

CERATOPHYLLUM submersum.

*Unarmed Hornwort.**MONOECIA Polyandria.*

GEN. CHAR. Male. *Cal.* in many divisions. *Cor.* none. *Stam.* 16 to 20.

Female. *Cal.* in many divisions. *Cor.* none.

Stigma nearly sessile. *Seed* solitary, coated.

SPEC. CHAR. Fruit destitute of spines.

SYN. *Ceratophyllum submersum*. *Linn. Sp. Pl.* 1409. *With.* 441. *Hull.* 211. *Fl. Dan. t.* 510.

C. demersum β. *Huds.* 419.

Hydroceratophyllum folio lævi, octo cornibus armato. *Vaill. Mem. de l'Acad. des Sciences (German edition)* 299. t. 15. f. 2. *Dill. in Raii Syn.* 135.

DILLENIIUS mentions his finding this plant, with Mr. Manningham, in ditches by the road from Chichester to Selsey island. Our specimen was gathered near Yarmouth, by Mr. D. Turner, flowering in September.

Root perennial. Whole plant floating under water, much branched, slender. Leaves about 8 in a whorl, forked twice or thrice, their segments linear, acute, spreading, sometimes toothed. Flowers axillary, sessile, solitary, male and female on the same plant. Calyx green, in many deep segments. Antheræ large, roundish, gibbous, nearly sessile, toothed at the top, speckled with red. Germen in a separate flower, with a calyx like that of the male, ovate, acute, smooth, beaked, with a sessile simple stigma. Fruit without spines, containing one large, oval, compressed seed.

This species is certainly to be distinguished from the more common *C. demersum* by its fruit being unarmed, not furnished with 3 long divaricating thorns. The leaves being twice or thrice divided, toothed or entire, on which Vaillant founded his distinctions, are variable circumstances, as Haller discovered by specimens sent him from Paris. Linnæus appears to have not well understood the two species. We intended to have published both at the same time, but having sought in vain this season for the fructification of the common one, we would not keep back so little known a plant as that here exhibited.



Salvia rosmarinifolia Boiss. & Heldr.

TEUCRIUM Chamædrys.
Wall Germander.

—◆—
DIDYNAMIA *Gymnospermia.*

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stamina* projecting above it.

SPEC. CHAR. Leaves on footstalks, somewhat ovate, deeply crenate or cut. Flowers axillary, three together, stalked. Stem round, hairy.

SYN. *Teucrium Chamædrys.* *Linn. Sp. Pl.* 790.
Sm. Fl. Brit. 607. *Huds.* 247. *With.* 518.
Sibth. 179. *Abbot.* 125. *Woodv. Suppl.*
t. 243.

Chamædrys vulgaris seu sativa. *Raii Syn.* 231.

—◆—

RAY observed this plant occasionally in the borders of fields remote from buildings, and yet durst not assert it to be indigenous. It seems to have been formerly much cultivated in gardens for medical use, being an approved deobstruent and expectorant, and possibly escaped from thence; for it has certainly no where in England the appearance of a genuine native, though introduced into all our Floras. Its favourite situation is a ruined wall. Sherard found it plentifully on Winchelsea castle. It grows in profusion on the inside of the city wall between Magdalen and St. Austin's gates, Norwich, from whence our specimens came, flowering in July and August.

Root creeping, perennial. Stem bushy, nearly upright, 6 or 8 inches high, round, leafy, hairy. Branches and leaves opposite; the latter ovate, variously cut and crenate, tapering at the base into a foot-stalk, and clothed with a few hairs. Flowers axillary, about 3 on each side, and forming a leafy spike. Each stands on a simple short stalk. Calyx campanulate, hairy. Corolla reddish-purple. Lower lip with a large round concave central lobe, and 2 small sharp lateral ones; what should be the upper lip consists of 2 other erect parallel very sharp lateral lobes, between which the *stamina* and style project upwards, forming the striking generic character of *Teucrium*. Seeds 4, naked. Whole herb very bitter.

684

787.



Ranunculus
sceleratus.

RANUNCULUS sceleratus.

Celery-leaved Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Lower leaves palmate ; uppermost fingered. Fruit oblong.

SYN. *Ranunculus sceleratus.* *Linn. Sp. Pl.* 776. *Sm. Fl. Brit.* 590. *Huds.* 241. *With.* 505. *Hull.* 121. *Relh.* 212. *Sibth.* 173, *Abbat.* 121. *Curt. Lond. fasc.* 2. t. 42.

R. palustris. *Raii Syn.* 249.

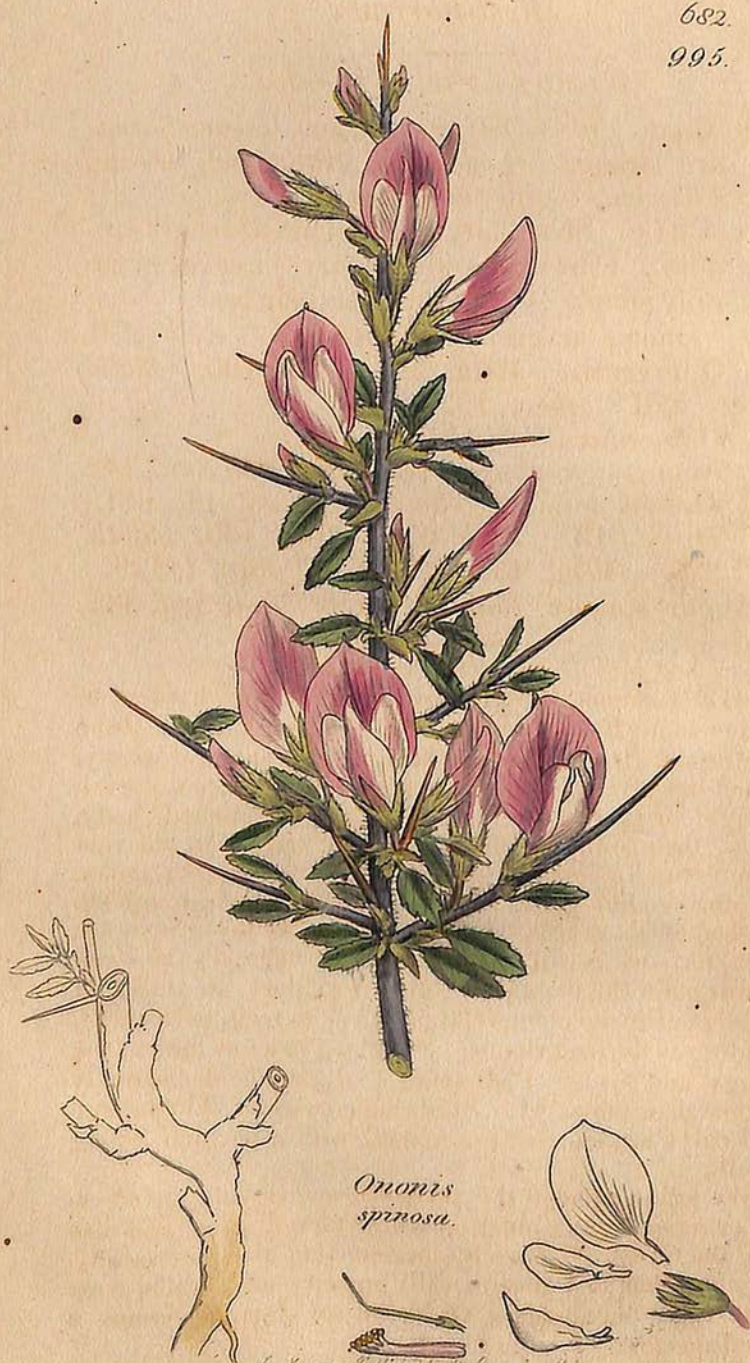
COMMON in watery places, where it may be found in flower and seed from June to the end of August, few plants propagating their species more copiously.

Root annual, fibrous. Herb various in size and luxuriance, of a pale shining green colour, juicy, and very smooth, except the flower-stalks and upper part of the stem, which are occasionally hairy. Stem round, hollow, thick, branched, leafy. Lower leaves on long foot-stalks, lobed and cut, but less deeply than the upper ones, which are divided to the very base, and sessile, their segments linear and entire. Flowers numerous, small, of a palish yellow. Calyx deflexed, shaggy. Honey-pore somewhat tubular. Fruit cylindrical, obtuse, short, composed of a multitude of small seeds.

One of the most virulent of all our native plants. If bruised and applied to the skin it soon raises a blister, and makes a sore by no means easy to heal. Strolling beggars have been said to use it for that purpose, in order to excite compassion. A more innocent way of raising money than many practised, on a larger scale, by their superiors, inasmuch as the encouragement of public virtues (however misapplied) is surely better than that of public vices.

682.

995.



O N O N I S arvensis.

*Rest-harrow.**DIADELPHIA Decandria.*

GEN. CHAR. *Cal.* 5-cleft, its divisions linear. *Standard* striated. *Pod* turgid, rhomboid, sessile. *Filaments* in one undivided set.

SPEC. CHAR. Stem hairy. Branches at length spinous. Flowers mostly solitary. Leaves generally simple, entire towards their base.

SYN. *Ononis arvensis.* *Lightf.* 386. *Relh.* 270.

α. *O. arvensis.* *With.* 627. *Hull.* 160. *Sibth.* 220. *Abbot.* 155.

O. inermis α. *Huds.* 313.

Anonis non spinosa, purpurea. Raii Syn. 332.

β. *Ononis spinosa.* *Syst. Veg. ed.* 14. 651. *Huds.* 312. *With.* 627. *Hull.* 160. *Sibth.* 220. *Abbot.* 155. *Mart. Fl. Rust. t.* 129.

Anonis spinosa, flore purpureo. Raii Syn. 332.

THE common Rest-harrow grows in the borders of barren sandy fields and by way-sides, flowering from June to August. Its root is perennial, very strong and woody, which has given rise to its English name. Stems annual, upright or procumbent, round, woody, branched, leafy, hairy, their branches in a barren soil and on an old root terminating in a spine. Leaves alternate, on foot-stalks, elliptical inclining to a wedge-shape, furrowed, roughish, toothed only towards their extremity; the lower ones are often ternate. A pair of united stipulæ embraces the stem. Flowers for the most part solitary, axillary, on stalks, of an elegant rose-colour. Calyx hairy, its teeth permanent, dilating as the fruit ripens. Standard twice as long as the wings and keel. Pod small and rhomboid, scarcely longer than the calyx. Seeds tuberculated. The foliage and calyx are more or less viscid, with a peculiar strong smell.

We are persuaded the *Ononis spinosa* is only the *arvensis* or *inermis* in an older or more starved state, and also that the *O. repens* is merely a procumbent maritime variety. *O. antiquorum* of Linnæus really appears not to differ from that here delineated. *O. hircina* of Jacquin seems a good species.

683.

439.



*Physospermum
cornubiense.*

Forst. 1792. Published by J. Smith.

LIGUSTICUM cornubiense.

Cornish Louage.

PENTANDRIA Digynia.

GEN. CHAR. *Invol.* general and partial. *Fruit* oblong, with 3 ribs on each side. *Corollæ* uniform. *Petals* rolled in, entire. *Cal.* of 5 teeth.

SPEC. CHAR. Radical leaves twice compound, cut ; stem-leaves ternate, lanceolate, entire. Furrows of the seeds obsolete.

SYN. *Ligusticum cornubiense.* Linn. *Sp. Pl.* 359. *Sm. Ic. pict.* t. 11. *Fl. Brit.* 210. *Huds.* 113. *With.* 297. *Hull.* 62.

Smyrnium tenuifolium nostras. Dill. in *Raii Syn.* 209. t. 8.

IT is remarkable that this plant has never been found in any part of the world except Cornwall, where a Mr. Steevens discovered it early in the present century. From that time till about ten years ago it was supposed to be lost, or that something had been mistaken for it ; but Mr. Pennington fortunately found it again about Bodmin, where Mr. D. Turner and Mr. Sowerby gathered this wild specimen. It is perennial, flowering in July, and grows in bushy fields, owing its preservation from cattle, who, according to Dr. Withering's observation, are very fond of it, to the surrounding thorns and briars.

Root tapering, discharging a yellow resinous juice. Stem about 2 feet high, erect, branched, round, striated, roughish, not very leafy, purple at the base. Leaves deep green, the radical ones on foot-stalks, twice or thrice ternate, broader than they are long, their leaflets wedge-shaped and cut, rough only on the nerves and margin ; those on the stem (which Linnæus, mistaking Dillenius's figure, took for the lowest radical leaves) consist of three lanceolate entire leaflets ; and the uppermost of all are simple. Umbels of many rays, smooth. Involucrum of about 8 shortish linear leaves ; the partial ones being like it in form, but smaller. Flowers white, uniform, and nearly regular ; the sharp points of their petals rolled in. Fruit ovato-oblong, striated on each side, the ribs not very prominent. Seeds ovate, black.

634.
406.



*Enanthe
Phellandrium.*

PHELLANDRIUM aquaticum.

*Water Hemlock.**PENTANDRIA Digynia.*

GEN. CHAR. *General Involucrum* none. *Florets* all fertile, the central ones smallest. *Fruit* ovate, smooth, crowned with the calyx and styles.

SPEC. CHAR. Segments of the leaves divaricated.

SYN. *Phellandrium aquaticum*. *Linn. Sp. Pl.* 366. *Sm. Fl. Brit.* 321. *Huds.* 122. *With.* 303. *Hull.* 63. *Relh.* 119. *Sibth.* 99. *Abbot.* 65. *Woodv. Suppl. t.* 266.

P. vel Cicutaria aquatica quorundam. *Raii Syn.* 215.

FREQUENT in running streams as well as stagnant ditches, flowering in June and July.

Root spindle-shaped, thick, with whorled fibres. Stem 2 or 3 feet high, thick, round, hollow, furrowed, much branched and very bushy, the branches being greatly divaricated, and mostly horizontal. Leaves spreading, thrice pinnate, cut, all the segments divaricated, smooth, of a dark shining green. Umbels opposite to the leaves, spreading, many-rayed; the partial ones very dense. Partial involucre of many narrow leaves. Flowers white, the outermost larger and irregular. Calyx of 5 spreading leaves. Fruit ovate, a little compressed, smooth, crowned with the erect calyx and styles.

This genus is next akin to *Oenanthe*, differing from it in the want of a general involucrum, in having all the flowers for the most part fertile, and in the want of a spongy coat to the seeds.

The fibres of the stem dissected by the action of water in the course of the winter, and then bleached in the air, form an elegant tube of net-work, often found on the banks of marsh-land ditches.

In running streams, as Dillenius observes, *Raii Syn.* 216, the leaves are lengthened out, and the flowers are rarely produced. Mr. Crowe has observed a remarkable variety, if not a species, which grows upon dry land.



Phragmites communis L. var. *communis* L. var. *communis* L.

CAREX hirta.

Hairy Carex.

MONŒCIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* hollow, permanent, investing the *seed*.

SPEC. CHAR. Hairy. Spikes short, cylindrical, remote. Sheaths nearly equal in length to the flower-stalks. Scales awned. Fruit hairy.

SYN. *Carex hirta*. *Linn. Sp. Pl.* 1389. *Gooden. Tr. of Linn. Soc. v. 2.* 208. *Huds.* 414. *With.* 111. *Hull.* 209. *Relh.* 357. *Sibth.* 33. *Abbot.* 207. *Dicks. H. Sicc. fasc.* 11. 16.

Gramen cyperoides polystachyon lanuginosum. Raii Syn. 418.

THIS species of *Carex* belongs to that division of the genus in which the male spikes are more than one. It is not uncommon in moist meadows and other watery places, flowering in May or June.

Root creeping very far, with downy fibres. Stem erect, about 2 feet high, leafy, triangular, the angles sharp and rough. Leaves scarcely so tall as the stem, erect, flat, pointed, most hairy beneath, rough at the edge; their sheaths long, very hairy upwards, though sometimes, according to Dr. Goodenough's remark, in watery places they become smooth. Bractæ like the leaves, with sheaths that include nearly the whole flower-stalk. Male-spikes 2, a little remote, lanceolate, with ovate, brown, rather pointed scales, externally hairy; female-spikes 3, remote, on stalks, erect, cylindrical, short, their scales smooth, ovate, with long rough awns. Fruit loosely imbricated, ovate, acute, nervous, hairy, somewhat beaked, deeply cloven at the point. Seed three-cornered, crowned with the style.

The separate spike only in *Fl. Dan. t.* 379 seems to belong to this plant. The rest of the figure is surely *C. filiformis*, a species most nearly allied to this, though truly distinct, and which having also 2 male spikes, ought to be placed next to it.

MEN'THA sylvestris.

Horse Mint.

DIDYNA MIA *Gymnaspermia*.

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular, four-cleft; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes shaggy, scarcely interrupted. Leaves acute, with deep-toothed serratures, chiefly downy beneath. Bractæ awl-shaped.

SYN. *Mentha sylvestris*. *Linn. Sp. Pl.* 804. *Sm. Fl. Brit.* 609. *Tr. of Linn. Soc. v.* 5. 179. *Huds.* 250. *With.* 521. *Hull.* 125. *Relh.* 222.

M. villosa prima. *Sole Menth.* 3. t. 1.

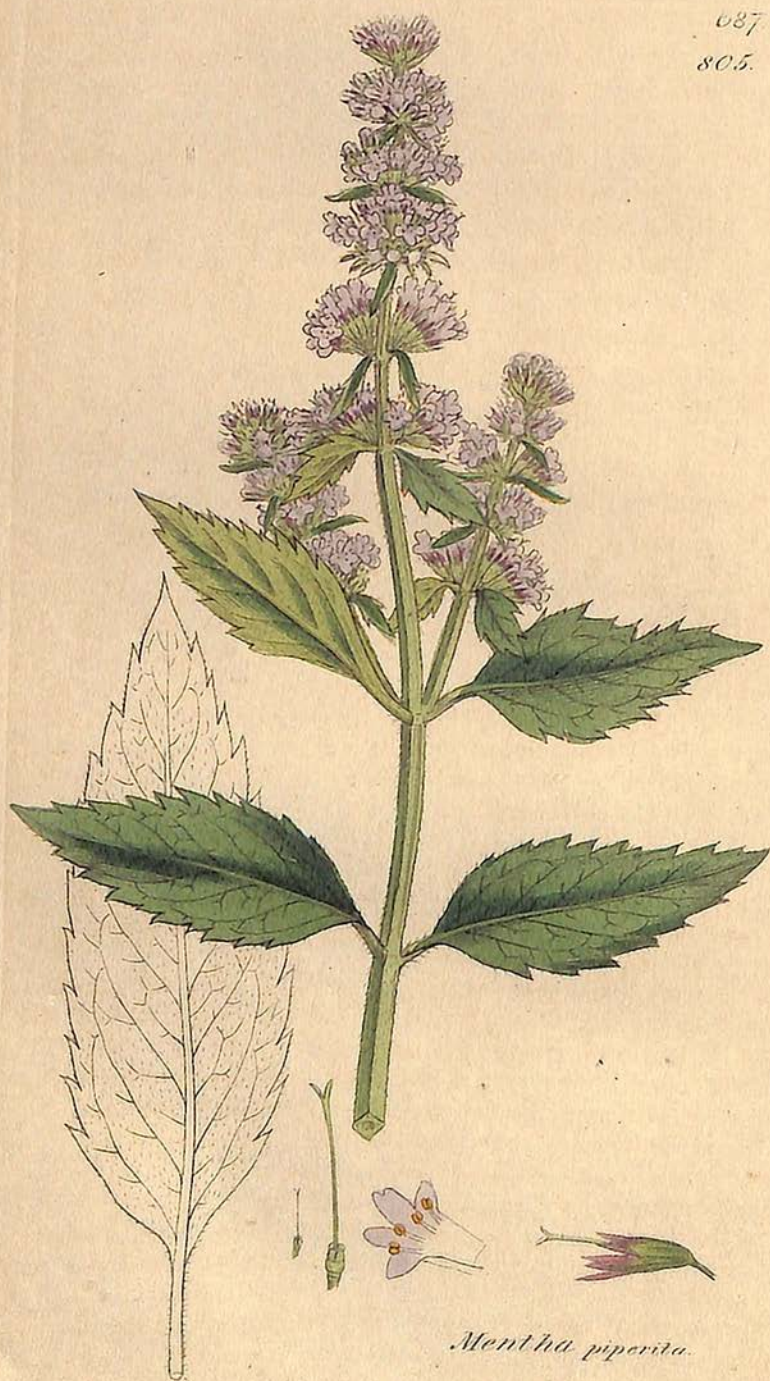
Menthastrum spicatum, folio longiore candicante. *Raii Syn.* 234.

NOT unfrequent in waste ground and watery places, flowering in August. The Rev. Mr. Relhan sent it from Cambridgeshire.

The root is perennial and creeping, as in the whole genus. Stems 2 to 4 feet high, erect, square, shaggy with hairs pointing downwards. Leaves sessile, or nearly so, of an oblong, lanceolate, somewhat ovate form, sharply and deeply serrated, hoary above, shaggy with soft white hairs beneath. Spikes terminal, paniced, sharpish, composed of numerous dense whorls, with very little space between even the lowermost; each whorl accompanied by a pair of tapering projecting awl-shaped bractæ, the lowest of which are dilated at the base. The whole inflorescence is shaggy and hoary. Hairs on the flower-stalks bent closely downwards. Calyx small, hairy all over, with tapering teeth. Corolla twice as long as the calyx, hairy, of a pale lilac colour. Stamina generally shorter than the corolla. The whole herb has a peculiar strong mint-like smell.

M. villosa secunda of Mr. Sole differs only in having more ovate leaves, and the *M. rotundifolia* of the same observing author appears to us not to be specifically distinct. Its leaves are very broad and elliptical. For the true *M. rotundifolia* of Linnæus see our t. 446. Doody found in Kent a very downy sweet-scented variety of *sylvestris*; mentioned in *Raii Syn. ed.* 2. 341.

687
805.



Mentha piperita.

Sp. Pl. 1000. t. 12. f. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

M E N T H A piperita.

*Pepper Mint.**DIDYNAMIA Gynnospermia.*

GEN. CHAR. *Cal.* five-cleft. *Cor.* nearly regular. four-cleft ; its broadest segment notched. *Stamina* erect, distant.

SPEC. CHAR. Spikes blunt, interrupted below. Leaves on foot-stalks, somewhat ovate, smoothish. Calyx very smooth at the base.

SYN. *Mentha piperita.* *Sm. Fl. Brit.* 613. *Tr. of Linn. Soc.* v. 5. 189. *Huds.* 251. *With.* 523, var. 2. *Woodv. Med. Bot.* t. 169.

M. piperita officinalis. *Sole Menth.* 15. t. 7.

β. *M. spicis brevioribus et habitioribus, foliis Menthae fuscae, sapore fervido Piperis.* *Raii Syn.* 234. t. 10. f. 2.

M. piperita vulgaris. *Sole Menth.* 19. t. 8.

γ. *M. piperita sylvestris.* *Sole Menth.* 53. t. 24.

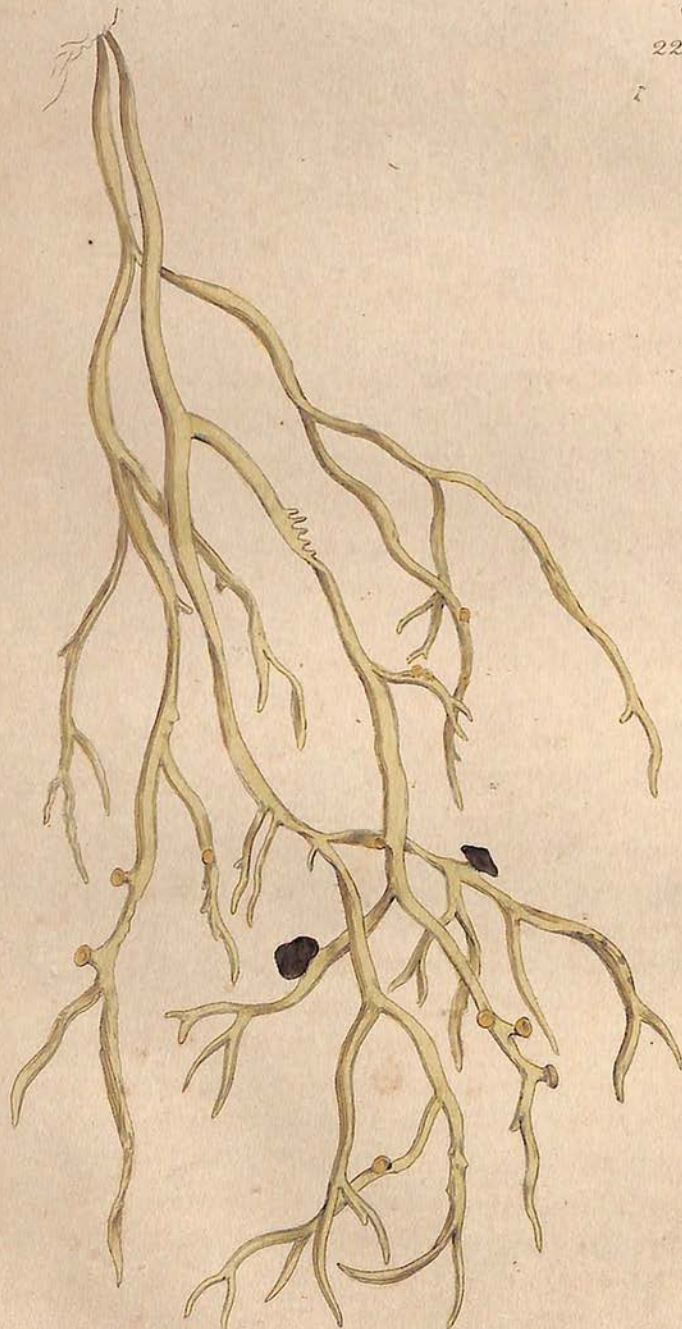
THIS, the true garden Pepper Mint, is now and then met with on the shores of brooks indubitably wild, as at Bonsall dale, near Matlock, though more frequently the outcast of gardens. Dr. Eales, its original discoverer, found it in Hertfordshire, in Ray's time, and on his recommendation it appears to have come into general use, as a cordial and stomachick. Mr. Relhan sent it from Hauxton, Cambridgeshire, flowering in September. It is quite different from the *M. piperita* of Linnæus and other northern botanists, except in flavour ; that being merely a variety of *hirsuta*, I retain the name of *piperita* for our old original species.

The stem is upright, branched, a little hairy with recurved hairs, often purplish. Leaves all on footstalks, dark-green, ovate, sharpish, serrated, smoothish above, more or less hairy beneath, never downy nor shaggy. Spike terminal, bluntish, interrupted, the lowest whorl remote, stalked, now and then spiked. Bractæ lanceolate, fringed. Flower-stalks either quite smooth, or a little hairy upwards. Calyx slender, furrowed, dotted, always quite smooth at the base, the teeth dark-purple and fringed. Corolla purplish. Stamina shorter than the segments.

Variety β has merely shorter rounder spikes and leaves, and is more commonly found wild : γ has heart-shaped smoother leaves, and a less grateful flavour.

686

2247.



Ramalina scopulorum

LICHEN scopulorum.

*Ivory Rock Lichen.**CRYPTOGAMIA Alga.*

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, pendent, branched, divaricated, linear, compressed, polished, greenish-white. Shields lateral, marginal, brownish, rather convex, on short stalks.

SYN. Lichen scopulorum. *Retz. Prod. ed. 2. 282. Dicks. fasc. 3. 18. Fl. Dan. t. 959. f. 2. With. v. 4. 57. Hull. 297.*

MR. DICKSON mentions this Lichen as growing on rocks and large stones in Scotland and England. It is, however, entirely a maritime species. Our specimens were gathered on the granite rocks of Lemorna Cove, near the Land's End, by J. L. Knapp, Esq. F. L. S. Mr. D. Turner and Mr. Sowerby also found it plentifully in the same neighbourhood. It is perennial, and the fructification is to be found at all seasons.

The fronds grow pendent from the rocks, from 2 to 5 inches in length, much branched, linear, narrow, pointed, compressed and somewhat pitted, their colour a greenish or yellowish white, and their surface so smooth and glossy as to bear a great resemblance to ivory, so that the name *eburneus* might with much propriety have been applied as a specific denomination. The shields grow on the margin upon short compressed stalks, and are nearly flat, pale brown, at length in decay black, and their edge is turned backwards; when young they have a narrow brown highly polished border. This species is of the same tribe of Lichens with *L. calicaris*, *fraxineus*, and some others. In colour, surface, and sensible qualities it nearly approaches *L. articulatus*.



Batrachospermum moniliforme

auth. et descript. J. S. Greville.

CONFERVA gelatinosa.

Frog-spawn Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* in round, solitary, closed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Branches beaded, with whorled compound fibres bearing the fruit and very gelatinous.

SYN. *Conferva gelatinosa*. Linn. *Sp. Pl.* 1635. Huds. 597. With. v. 4. 134. Hull. 332. Relh. *Suppl.* 2. 21. Sibth. 337. Abbot. 275.

C. fontana nodosa, *spermatis ranarum instar lubrica*, major et fusca Dill. *Musc.* 36. t. 7. f. 42. Dill. in Raii *Syn.* 62.

Chara batrachosperma. Weis Gott. 33. t. 1.

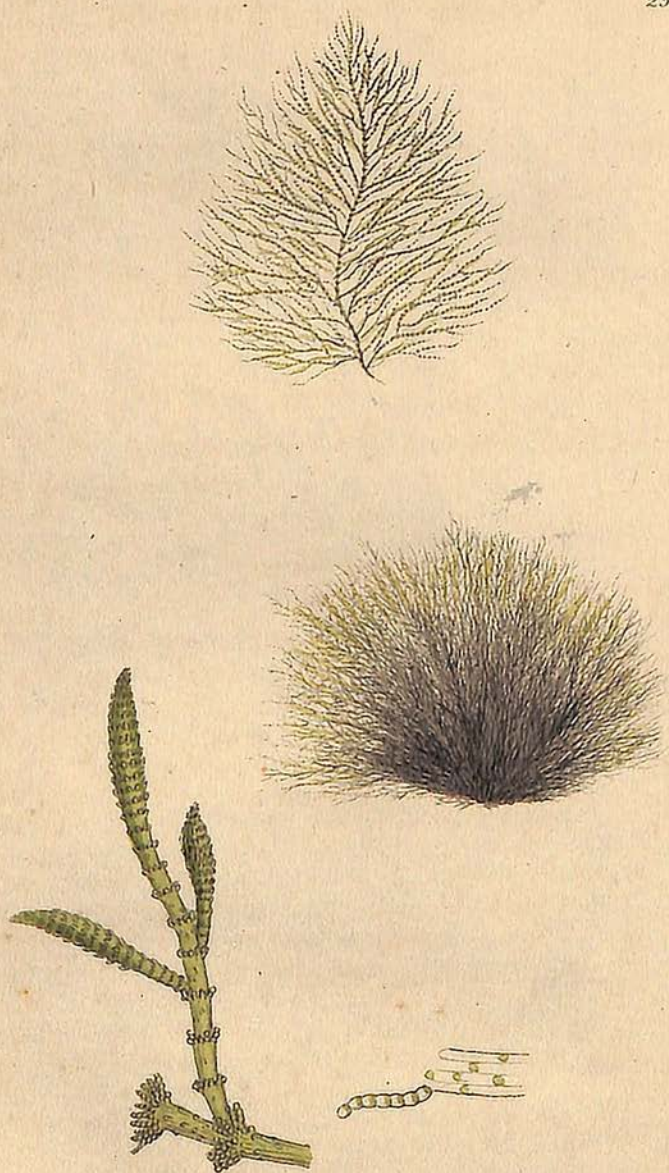
GATHERED in a clear rivulet at Hopton, Suffolk, near Yarmouth, by Mr. D. Turner, last April. We have found it on Hindolveston common, Norfolk, and in other places, generally in the summer. It is always immersed in the most pellucid waters, growing attached to pebbles, and flowing with the stream.

The whole plant is extremely slimy and slippery to the touch, and very tender; its colour dark green; in some varieties paler, in others blueish. Stem very much branched, and apparently composed of thick-set bead-like joints, each of which is in fact a whorl of minute compound filaments, every compound filament sustaining one fruit.

Mr. Turner justly observes that Weis, who has given a most elaborate description and excellent figure of this plant, would never have thought it a *Chara* if that genus had been then well known, or if he had, by a residence on the sea shore, been acquainted with the fructification of real *Confervæ*; see *C. byssoides*, t. 547. Mr. Turner suspects that Hudson's variety β , fig. 43 of Dillenius, may be a distinct species, the ramification, when examined under a microscope, being dissimilar.---The stem of *C. gelatinosa*, highly magnified, appears to be an almost colourless transparent membrane, jointed like most of the genus.

690.

2543.



Batrachospermum detersum?

No. 11. 1850. Published by J. G. Smith, London.

CONFERRA atra.
Black Beaded Conferva.

CRYPTOGAMIA Algae.

GEN. CHAR. *Seeds* in round, solitary, closed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Branches beaded, with whorled, simple, jointed filaments, somewhat gelatinous, blackish in decay.

SYN. *Conferva atra*. Huds. 597. With. v. 4. 134.
Hull. 332. Dicks. H. Sicc. fasc. 13. 25.

C. fontana nodosa lubrica, filamentis tenuissimis nigris. Dill. Musc. 39. t. 7. f. 46.

WE have received this also from Mr. D. Turner, and cannot illustrate it better than in his own words.

“The fate of this very elegant *Conferva* seems to have been the reverse of the foregoing, few having been more universally noticed than the one, and few more neglected than the other. Excepting Dillenius, whose figure well expresses its general appearance, scarcely any author seems to have described it from his own observation. Mr. Dickson has found it on Wimbledon common, and our specimen was gathered in the same brook with the preceding. It begins to appear in the end of March, consisting of short extremely delicate filaments, irregularly branched; of a pale green; and continues increasing till the middle of May, when it is in perfection, the stems being then about $1\frac{1}{2}$ inch long, bushy, of a darker green, almost black at the base, but not sufficiently to justify the name, except when dried. From this period it gradually decays, loses its finer parts, becomes rigid, and by the beginning of August completely disappears. The stem is swollen at the joints, and whorled with minute fine jointed short simple filaments. It differs at first sight from *C. gelatinosa* in texture and thickness, and from *C. fluviatilis* in both these respects, as well as colour and ramification. It cannot be confounded with any other known British species.”

691.
868.

Linaria spuria.



Linaria spuria, L.

ANTIRRHINUM spurium.

Round-leaved Fluellin.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves ovate, alternate. Stems procumbent.

SYN. *Antirrhinum spurium.* Linn. *Sp. Pl.* 851. *Sm. Fl. Brit.* 657. *Huds.* 272. *With.* 549. *Hull.* 138. *Relh.* 242. *Sibth.* 194. *Abbot.* 137. *Curt. Lond. fasc.* 3. t. 37.

Linaria Elatine dicta, folio subrotundo. Raii *Syn.* *282.

GATHERED in Shepey island, September 24, 1797, on the high cliffs next the sea, where corn fields had lately been, but which are continually crumbling away. Mr. Curtis has observed this species to be rare about London. In Suffolk and the midland counties it is more frequent. Mrs. Kett has found it at Seething, Norfolk.

Root small, annual. Stems spreading, soon becoming procumbent, branched, round, hairy. Leaves numerous, alternate, on short foot-stalks, of a broad ovate or roundish figure, pointed, hairy, mostly entire, with now and then a solitary notch or tooth. Flower-stalks axillary, solitary, hairy, single-flowered. Calyx with ovate, pointed, hairy segments. Corolla with a recurved spur, the upper lip violet, lower yellow.

A very young botanist and artist, the son of Mr. Sowerby, has discovered in this and *A. Elatine* an abortive stamen between the 2 upper filaments, which appears to be constant, and which on examination was found also in *A. majus*, *Linaria* and *Cymbalaria*.

The late Sir John Cullum observed regular quinquefid flowers with 5 spurs and 5 equal stamina, as in *Peloria*, in this species; a circumstance mentioned by Hudson.

692.

869.



Linaria Flaminea.

Painted by J. Smith. Engraved by J. Smith.

ANTIRRHINUM *Elatine.*

Sharp-pointed Fluellin.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 5 segments. *Cor.* with a prominence at its base, pointing downwards and bearing honey. *Caps.* 2-celled.

SPEC. CHAR. Leaves halberd-shaped, alternate. Stems procumbent.

SYN. *Antirrhinum Elatine.* *Linn. Sp. Pl.* 851. *Sm. Fl. Brit.* 658. *Huds.* 271. *With.* 549. *Hull.* 138. *Relh.* 242. *Sibth.* 195. *Abbot.* 137. *Curt. Lond. fasc. 1. t.* 46.

Linaria Elatine dicta folio acuminato. *Raii Syn.* *282.

FOUND with the preceding at Shepey by Mr. Sowerby. It is more common than that, in corn-fields on a gravelly or calcareous soil, flowering from July to September.

Root annual. Stems and general habit much the same as in *A. spurium*, except that this is in all respects a more slender plant, and the flowers are smaller. The halberd-shaped leaves essentially distinguish it, though the lower ones approach to a roundish form. Flower-stalks capillary and mostly smooth. Segments of the calyx approaching to lanceolate. Corolla yellow, with a violet upper lip. Seeds very rugged, as in *A. Cymbalaria*. The species also has occasionally regular flowers. The abortive fifth stamen appears to be constant, and shews, among many other circumstances, the close affinity between the Order in Linnæus to which these plants belong, and the *Pentandria Monogynia*.

693

546



Epilobium roseum.

See the next Plate for the fruit of this plant.

EPILOBIUM ['] roseum.*Pale smooth-leaved Willow-herb.**OCTANDRIA Monogynia.*

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Cap-
sule* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves on footstalks, ovate, toothed.
Stem with four obsolete angles. Stigma undi-
vided.

SYN. *Epilobium roseum.* Schreb. *Lips.* Forster in
Syn. Syn. 198. Sm. *Fl. Brit.* 411.

THE late Mr. Curtis first detected this species of *Epilobium* growing indigenously about his garden in Lambeth marsh. Mr. E. Forster, jun. afterwards found it in a moist ditch at Moreton, near Ongar, Essex, and by the road-side between Spelbrook and Bishop's Stortford, nearly opposite to Wallbury, the great Roman camp, from whence he brought us the present specimen. It seems to be perennial, flowering in July; and propagates itself so copiously by seed as to be a very troublesome weed, even in a dry garden, when once introduced.

It has much the habit of *E. montanum*. The root is fibrous. Stem upright, branched, 12 or 18 inches high, slightly hoary, obscurely quadrangular in the upper part. Leaves smooth, thin and delicate. Clusters of flowers leafy. Petals small, flesh-coloured, marked at the base with radiating crimson lines. Stigma club-shaped and perfectly undivided, not four-cleft; by which circumstance it is clearly distinguished from the *montanum* and every other British *Epilobium* except *tetragonum*. Is it possible it may have originated from seeds of the latter impregnated by the pollen of *montanum*? If so, it unites the external form of the father with the fructification or internal structure of the mother, according to the Linnæan hypothesis, as completely as could be wished.

694.
678.



Spergula nodosa.

Spergula nodosa. L. f. Bot. Mag. London.

SPERGULA nodosa.

Knotted Spurrey.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, undivided.
Capsule superior, ovate, of 1 cell and 5 valves.

SPEC. CHAR. Leaves opposite, awl-shaped, smooth;
 the upper ones clustered. Calyx without nerves.

SYN. *Spergula nodosa.* *Linn. Sp. Pl.* 630. *Sm. Fl. Brit.* 503. *Huds.* 203. *With.* 437. *Hull.* 102. *Relh.* 181. *Sibth.* 148. *Abbot.* 103. *Curt. Lond. fasc.* 4. t. 34.

Alsine palustris foliis tenuissimis, seu Saxifraga palustris anglica. *Raii Syn.* 350.

THIS pretty plant is found in wet spots upon sandy heaths and commons, but not very frequently. It is perennial, flowering in July and August. The seeds are not always perfected.

Root fibrous. - Herb very smooth. Stems spreading, and generally prostrate, numerous, slender, but little branched, clothed with many pairs of awl-shaped united leaves, which produce from their bosoms tufts of much smaller leaves, especially the uppermost. Sometimes the larger ones are slightly fringed at their base. The flowers grow on stalks at or near the extremities of the stems, and are large in proportion to the plant, of a pure brilliant white, and elegant in their appearance. The 5 styles and 5 valves of the fruit alone separate this plant from the genus of *Arenaria*, to which it is in other respects closely allied, as may indeed be said of almost every *Spergula*.

The first discoverer of the *S. nodosa* in England was Mr. John Goodyer, in 1626, as appears from his own statement in the 2nd edition of Gerarde's Herbal, p. 568; to which work he was a great contributor, and his communications are remarkable for accuracy of observation and clearness of expression.

693.
657.



Sedum reflexum.

S E D U M reflexum.

*Yellow Stone-crop.*D E C A N D R I A *Pentagynia.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves awl-shaped, scattered, loosened at the base; the lowermost recurved. Flowers somewhat cymose.

SYN. *Sedum reflexum.* *Linn. Sp. Pl.* 618. *Sm. Fl. Brit.* 490. *Huds.* 195. *Willd.* 429. *Hull.* 100. *Relh.* 173. *Sibth.* 144. *Abbot.* 99.

S. minus, luteum, ramulis reflexis. *Raii Syn.* 270. and

S. minus hæmatoides. *Raii Syn.* 269.

COMMON on walls and thatched roofs, flowering in July. The roots are perennial, consisting of simple fibres that spring from the lower parts of the round, fleshy, variously spreading, entangled or pendent, stems. The leaves are irregularly but not distantly placed on the branches and upright flowering stems, and are extremely succulent, smooth, rather glaucous, often reddish, of an awl-shaped figure, attached by their flat inner-side a little above the base, so that they terminate below in a kind of short spur. When old they easily fall off. Flowers in a terminal cyme, bright yellow, numerous, very generally consisting of 6 petals and germens, with as many segments of the calyx, and 12 stamina, having (as Linnaeus expresses it) a fifth part added to the natural number in the fructification; a circumstance common in the natural order to which *Sedum* belongs.

Ray notices two kinds of this Stone-crop, differing only in the branches and flower-stalks being more or less recurved, and indeed he himself thought them only varieties.

696
911.



Cochlearia Danica.

1757, 1758 Published by J. B. Swartz, Linc.

COCHLEARIA danica.

*Danish Scurvy-grass.**TETRADYNAMIA Siliculosa.*

GEN. CHAR. *Pouch* turgid, rugged; valves gibbous, obtuse. *Calyx* spreading, concave.

SPEC. CHAR. Leaves all deltoid, on footstalks. Fruit elliptical, reticulated with veins.

SYN. *Cochlearia danica*. Linn. *Sp. Pl.* 903. Sm. *Fl. Brit.* 689. Huds. 284. With. 573. Hull. 144. *Fl. Dan.* t. 100.

C. marina, folio anguloso parvo. Raii *Syn.* 303.

LAWSON appears to have discovered this plant in Walney island, Lancashire, and Mr. Llwyd afterwards in Anglesea. It has been but little known, and many persons have suspected it to be a variety of *C. anglica*, but without the least foundation. Mr. Crowe some years ago detected it in salt marshes at Wells, Norfolk. Mr. D. Turner and Mr. Sowerby observed it in several parts of the southern coast, from Portland island to the Land's end, and gathered our present specimen. It is annual, flowering from May or June, till late in the summer.

This species is always smaller than those figured in t. 551 and 552, though like them it varies in size. The root is fibrous. Stems spreading, about four inches high, mostly simple. Leaves all on longer or shorter footstalks, uniform, deltoid or trowel-shaped, with three (rarely five) lobes, smooth and shining, having much of an ivy-like appearance, so that Lobel aptly called it *Thlaspi hederaceum*. The flowers are small and white, in a corymbus, which is seldom so much elongated as in the other species. Pouches elliptical, flattish, marked with a net-work of veins, and crowned with a short style. Seeds about 6 in each cell, rugose.

If the ivy-like form of the leaves, especially the radical ones, be attended to, this species can never be mistaken. In sensible qualities it agrees with the rest of its tribe,

697.
436.



Myrrhis
odorata.

Bot. 1200

SCANDIX odorata.

*Sweet Cicely. Great Chervil.**PENTANDRIA Digynia.*

GEN. CHAR. *Gen. Involucrum* none. *Flowers* radiant. *Petals* notched. *Fruit* awl-shaped. *Central flowers* often male.

SPEC. CHAR. *Seeds* furrowed, angular, smooth.

SYN. *Scandix odorata.* *Linn. Sp. Pl.* 368. *Sm. Fl. Brit.* 323. *Huds.* 124. *With.* 306. *Hull.* 63. *Sibth.* 100. *Lightf.* 166.

SENT from the North of England by Mr. Robson, flowering in May. There has been much controversy whether this plant should be reckoned a native or not. It is found abundantly in Westmoreland, Cumberland, &c. as well as in the Lowlands of Scotland, and in some parts of Wales, but always in orchards or pastures near houses, its aromatic seeds making a part of the humble luxuries, and simple medicines, of the mountain cottager. The Rev. Mr. Wood thinks it certainly wild near Leeds; but the most ancient, and therefore best, authority on this subject, is Dr. Richardson, the friend of Ray, a specimen from whom is in Buddle's herbarium, with an inscription, asserting the sweet Cicely to be truly wild in meadows, betwixt Morton and Rushforth, in the West Riding of Yorkshire.

The root we believe is perennial, spindle-shaped, and aromatic. Stems a-foot and half high, branched, furrowed. Leaves sessile, pale-green, hairy, triply winged, and pinnatifid. Umbels terminal, erect, of many rays. The partial involucre lanceolate, deflexed, membranous, pale. Flowers white; the central ones most numerous, and having abortive germens. Seeds large, about an inch long, erect, lanceolate, acute, not beaked, furrowed, smooth, of a shining brown, with a sweet aromatic flavour, and crowned by the spreading styles.

698.
39.



Valeriana officinalis.

Herb. & Bot. Mus. Götting. 1845.

VALERIANA officinalis.

*Great Wild Valerian.**TRIANDRIA Monogynia.*

GEN. CHAR. *Cal.* none. *Cor.* of one petal, superior, gibbous on one side at the base. *Seed* one.

SPEC. CHAR. *Stamina* three. *Leaves* all pinnated, leaflets lanceolate, nearly uniform.

SYN. *Valeriana officinalis.* *Linn. Sp. Pl.* 45. *Sm. Fl. Brit.* 38. *Huds.* 12. *With.* 66. *Hull.* 10. *Relh.* 14. *Sibth.* 21. *Abbot. S. Curt. Lond. fusc.* 6. *t.* 3. *Woodv. Med. Bot.* *t.* 96.

V. sylvestris major. *Rail Syn.* 200.

THE wild Valerian cannot have escaped the most superficial botanist about moist hedges and the margins of rivers, where it lifts up its flowery heads above the tops of Carices and other large grasses, among which it commonly grows. It is perennial, and flowers some time in June. The feathery-winged seeds are scattered in July.

Stem about 4 feet high, furrowed, leafy. Leaves pinnated, with an odd leaflet, all the leaflets serrated, and nearly uniform, those of the radical leaves (especially in the mountain variety mentioned by Dillenius in Ray's Synopsis) being somewhat broader. Flowers numerous, flesh-coloured. It is readily distinguished from *V. dioica*, *t.* 628, by its greater size, pinnated radical leaves, and hermaphrodite flowers.

The root is aromatic, but with a very nauseous flavour. That of the mountain variety, which grows in dry groves and thickets, and is of a more humble growth, is preferred for medical purposes, being more pungent and aromatic. It is celebrated, not unjustly, in nervous diseases, particularly hysteric and epileptic complaints.



Squamaria gelida

LICHEN *gelidus*.

Flesh-coloured Alpine Lichen.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

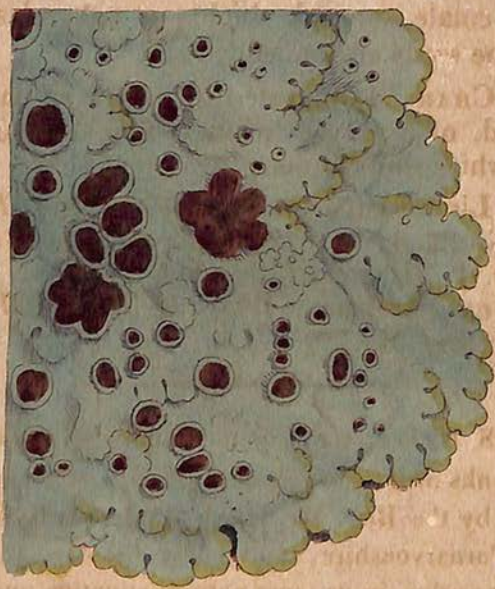
SPEC. CHAR. Crust almost inseparable, lobed, whitish, smooth, with a few brown lobed warts in the centre. Shields concave, rose-coloured, with a white, smooth, elevated border.

SYN. Lichen *gelidus*. Linn. *Mant.* 133. Dicks. *Crypt. fasc.* 2. 13. H. *Sicc. fasc.* 7. 25. With. v. 4. 26. *Hutl.* 231.

L. Heclæ. *Fl. Dan. t.* 470. f. 2.

THE first specimens of this rare and curious *Lichen* ever observed by any botanist in Britain, were I believe communicated to me in 1782 from the Glen of Leney near Stirling by my friend Dr. Francis Buchanan, now at Bengal. I was persuaded, though then a very young botanist, it could be no other than the *L. gelidus* of Linn. and ventured to contend, against many higher authorities, that the *gelidus* of Hudson was only *ventosus*, bleached by age. Linnaeus evidently describes the singular brown tubercles, in the centre, as the fructification, instead of the real shields, which are of very rare occurrence, and were not in the specimens he saw. The Rev. Mr. Harriman and Mr. Oliver have been so fortunate as to find some in perfection, growing on large stones near the High Force, Teesdale, and obligingly communicated them to Mr. Sowerby.

This species can be confounded with no other. It consists of a white smooth crust, with difficulty to be cut whole from the rock even in wet weather, and forming small roundish patches, lobed in the margin, and partly assuming the appearance of an imbricated *Lichen*. In the centre are a few elevated, brown, lobed warts, whose use and functions are unknown; and around them, in perfect plants, several small round shields, of a delicate rose-colour when wet, with a very white smooth elevated margin.



Parmelia tiliacea

LICHEN tiliaceus.

Smooth Grey Lichen.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated. Leaflets sinuated, rounded, of a greyish white. Shields brown, with a white smooth margin.

SYN. Lichen tiliaceus. (*Hoffm.*) *Sm. Tr. of Linn. Soc.* v. 1. 83. *Dicks. Crypt. fasc.* 3. 16. *With.* v. 4. 31. *Hull.* 294.

L. quercifolius. *Wulf. in Jacq. Coll.* v. 3. 127. t. 9. f. 2.

THIS *Lichen*, very common and with copious shields on the trunks of Olive-trees in the South of France, has been found by the Rev. Mr. Hugh Davies on rocks in Anglesea and Carnarvonshire; and lately by Mr. D. Turner and Mr. Sowerby, in its more natural situation and appearance, on the trunks of oak-trees, by the round tower at Dunster, Somersetshire, in great abundance, though sparingly in fructification; for the Lichens in general are most fruitful in southern climates.

It is most allied to *L. saxatilis* and *omphalodes*; but the great smoothness of its upper surface, and its more rounded, generally broader, lobes, distinguish it. The shields also are flatter, and their margin smooth and conspicuously white, never powdery or warty, as those of both the species just mentioned always are. Their disk is of a bright bay-colour, greenish when wet. The under side of the frond, as in those species, is shaggy and coal-black; in which respect, as well as size, and the want of green mossy balls, it differs from *L. glomuliferus*, figured in our 5th vol. t. 293, with which the ingenious Abbé Wulfen confounded it.

BYSSUS barbata.
Bearded Yellow Byssus.

CRYPTOGAMIA Algæ.

GEN. CHAR. Whole plant consisting of down or simple powder. *Fructification* unknown.

SPEC. CHAR. Filaments upright, branched, bundled, with annual interruptions, tawny, with smooth, swelled, deeper-coloured tips.

SYN. *Byssus barbata*. *Huds.* 606. *Hull.* 308.

B. fulva. *With. v.* 4. 144 *t.* 18. *f.* 5.

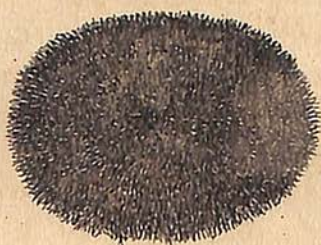
B. arborea barbata, fulvi coloris. *Dill. Musc.* 9. *t.* 1. *f.* 19. *Raii Syn.* 57.

DR. WITHERING has accidentally referred this production to the *Byssus fulva* of Hudson, instead of his *barbata*; hence there is some confusion in his account of it. We have been favoured by the Right Hon. Lady Elizabeth Noel with a fine specimen, accompanied by an excellent drawing of her own, in which the swellings at the ends of the branches are more complete than in any we have before seen; and her ladyship supposes, with great probability, the fructification may in some mode or other be contained in them. If so, it is the first approach towards the discovery of the fructification in this genus. These tips are smooth, of the rich colour of the stigma of the *Crocus sativus*, and semitransparent; we have sought in vain for any granules or seeds, but Dr. Withering perhaps had a more advanced specimen.

The *B. barbata* grows on decayed wood in shady places, as court-yards, &c. It forms thick tawny-coloured tufts, from one to two inches high, and is perennial, the growth of each year being marked by a swelling, and a darker colour, in each principal filament or stem. Young plants consist of a simple filament, regularly and beautifully feathered at the summit.

702

2531



Chroolepus ebenea?

2489 1809. Published by J. G. Sowerby, London.

B Y S S U S *nigra*.*Black Rock Byssus.*

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Whole plant consisting of down or simple powder. *Fructification* unknown.

SPEC. CHAR. Filaments branched, matted, powdery, black.

SYN. *Byssus nigra*. *Huds.* 606. *Lightf.* 1003.
With. v. 4. 144. *Hull.* 307.

B. petræa nigerrima fibrosa. *Dill. Musc.* 9. t. 1.
f. 18. *Dill. in Raii Syn.* 57.

ON shady overhanging rocks, in the Alpine parts of our island, this *Byssus* is often met with. It forms patches of various sizes, perfectly black, and may easily be scraped from the stone. When gathered, it closely resembles a piece of felt scraped from a hat, both in texture and colour. It consists of a mat of fine, soft, though elastic, branched filaments, often covered with an equally black sooty powder, which is probably the seed. Yet we do not know that this powder is produced at any particular season exclusively. The plant appears to be perennial, and, from some remarks we have made in its place of growth, very long-lived. We have no specimens to decide accurately what Linnæus intended by his *B. antiquitatis*, but we can scarcely assent to Lightfoot's supposition, that he originally meant our *nigra*, though he, or Murray, in *Syst. Veg. ed.* 13, has quoted the figure of Dillenius, and description of Weis, which belong to it. Lightfoot's account is taken, with a little variation, from the author last mentioned.

Mr. Sowerby found this plant on sand-stone rocks, near Tunbridge, in plenty. I have gathered it on the Pentland hills near Edinburgh, and about Winandermere, Westmoreland; but no where in such perfection as at Hafod, Cardiganshire, on a shady rock opposite the great stone of Maen Arthur, one of the wildest and most romantic spots in Wales. It is always found on a micaceous or quartzose stone.



Stachys virginica (L.) Benth.

SAMOLUS Valerandi.

*Brook-weed, or Water Pimpernel.**PENTANDRIA Monogynia.*

GEN. CHAR. *Cor.* salver-shaped, 5-cleft, with intermediate scales. *Stam.* inserted into the tube, opposite to the segments. *Caps.* half inferior, of one cell, with 5 teeth.

SPEC. CHAR. Leaves blunt. Cluster many-flowered. A small bractea on each flower-stalk.

SYN. *Samolus Valerandi.* *Linn. Sp. Pl.* 243.
Sm. Fl. Brit. 259. *Huds.* 94. *With.* 246.
Hull. 52. *Relh.* 92. *Sibth.* 79. *Abbot.* 49.
Curt. Lond. fasc. 4. *t.* 20. *Raii Syn.* 283.

THE Water Pimpernel is found, as Linnæus mentions, in almost every quarter of the globe and under very different latitudes. We have had occasion to remark that this circumstance, however uncommon with plants as well as animals in general, happens to several aquatics. The *Samolus* has little affinity to its neighbouring genera in the 5th Class of Linnæus, for instead of the natural order of *Lystmachie* to which M. De Jussieu refers it, I cannot help considering it, more especially from its approximation to *Montia*, as belonging to his *Portulacæ*; and Mr. Dryander has well observed that the *Sheffieldia* of Forster, a New Holland plant, is but another species of *Samolus*.

S. Valerandi is not very common in England or Scotland. It occurs chiefly in clear watery boggy places upon a gravelly soil, flowering in July, and is perennial.

Root of many simple fibres. Whole herb smooth, pale-green, a little succulent, about a foot high. Stem round, terminating in one or more long clusters of numerous white flowers, each on its own flower-stalk, in the middle of which stands a small bractea. The leaves are alternate, obovate and entire. Stamina included within the corolla, which is a little longer than the calyx. Five small scales between the lobes of the corolla form the essential generic character. The capsule is rather more below than above the calyx, and opens with 5 teeth at the top.

704

341.



Ribes alpinum.

Monk, 1800. Published by J. B. Baillière.

R I B E S alpinum.
Tasteless Mountain Currants.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* superior, bell-shaped, 5-cleft, bearing the *petals* and *stamina*. *Style* cloven. *Berry* with many seeds.

SPEC. CHAR. No thorns. Clusters erect both in flower and fruit. Bractææ longer than the flowers. Leaves shining beneath.

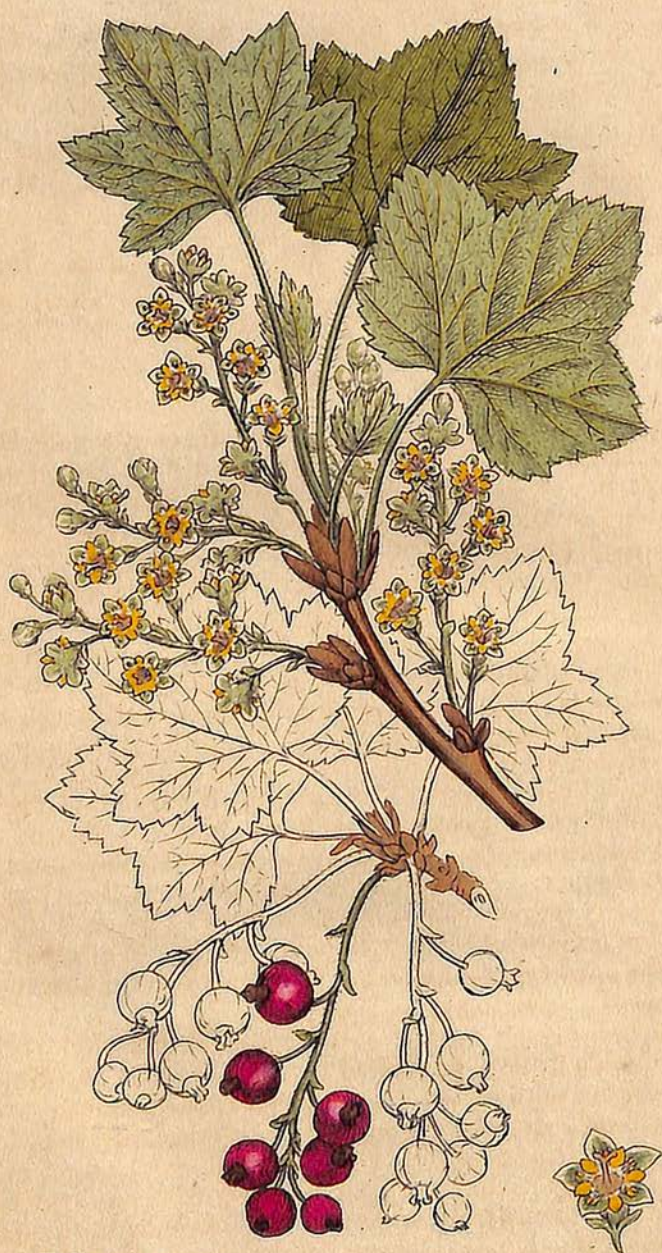
SYN. *Ribes alpinum*. *Linn. Sp. Pl.* 291. *Sm. Fl. Brit.* 264. *Huds.* 99. *With.* 264. *Hull.* 54. *Dicks. H. Sicc. fasc.* 15. 13. *Lightf.* 146.
R. alpinus dulcis. Raii Syn. 456.

A NATIVE of rocky mountainous woods or thickets in some parts of the north of England and Scotland. We received a specimen in flower from Mr. E. Robson May 29 last, and another in fruit from Mr. W. Brunton, jun. of Ripon, June 20.

This cannot be confounded with any other British *Ribes*. The small leaves, so smooth and shining underneath, the constantly upright spikes, and the insipid fruit clearly ascertain it. The berries, so far from having the sharp acidity of our red currants, are filled with a mucilage as tasteless as gum arabic. The shrub is about 2 or 3 feet high, much branched, smooth, except that the leaf-stalks are ciliated. Flowers small, of a dull green, with glandular stalks, and brown membranous bractææ exceeding each flower in length. The bark in winter is covered with small black *Sphæriæ*, or other minute *Fungi*, which Mr. Sowerby proposes to illustrate hereafter in his admirable figures of that curious and intricate tribe.

It is well worth observing how truly the insertion of the stamina into the calyx, as in the class *Icosandria*, indicates a wholesome fruit. The fruits of the *Pentandria Monogynia* are generally dangerous, many of them peculiarly fatal. *Ribes* is an exception, indicated by the insertion of its stamina, in which, though not in their number, it accords with the *Icosandria*. With this simple guide a traveller in the most unknown wilderness might eat in safety, and thus the natural tree of knowledge leads to life.

705.
339.



Ribes petraeum.

March 1. 1800 Published by P. Leamy London.

R I B E S petræum.

*Rock Currants.**PENTANDRIA Monogynia.*

GEN. CHAR. *Cal.* superior, bell-shaped, 5-cleft, bearing the *petals* and *stamina*. *Style* cloven. *Berry* with many seeds.

SPEC. CHAR. No thorns. Clusters in flower erect; in fruit pendent. Petals bluntish. Bractææ shorter than the flowers.

SYN. *Ribes petræum*. *Sm. Fl. Brit.* 265. *Wulfen. in Jacq. Misc. v. 2. 36. Jacq. Ic. Rar. v. 1. t. 49. Willden. Sp. Pl. v. 1. 1153.*

GATHERED in the mountainous country near Eggleston, Durham, and sent to us by the Rev. Mr. Harriman, F. L. S., as well as from Conscliffe by Mr. E. Robson. It flowers in May or June, and ripens its berries a month or six weeks later.

This is a bushy branched shrub, with leaves not unlike those of *R. rubrum*, except that they are rather more downy in general on the under side, particularly about the veins. Clusters of flowers erect, but as the fruit ripens they become pendulous. Calyx greenish, often stained with red, and the petals, which vary in shape and breadth, but are generally blunt, are brownish or reddish. Berries globose, bright red, acid. The bractææ are short, roundish, very blunt, recurved, ciliated, not so long as even the stalk of the flower.

I have some doubt whether the *R. spicatum*, described by Mr. Robson in the Linn. Society's Transactions v. 3. t. 21, be really a distinct species from this. The chief difference seems to consist in the fruit being erect or pendulous. This point however cannot be left to a more faithful observer than himself to determine on the spot.

I find myself farther obliged to observe that the Abbè Wulfen's figure, published by Jacquin, has the flowers of much too high a rose-colour, from whence Lamarck has incautiously defined the species "*calyce ruberrimo*." This figure is still more faulty in having linear sharp long bractææ. Our specimens agree precisely with one sent by Prof. Jacquin himself, so there can be no fallacy in that respect. I make this remark merely for the sake of truth, and with the highest esteem for his venerable correspondent, whatever may have been said to the contrary by a German writer* of no authority, equally deficient in liberality and fidelity, whose name I scarcely know, and will not help to preserve.

* In a review of Tr. of Linn. Soc. v. 2. p. 10:

700
689.



PRUNUS Cerasus.

Wild Cherry-tree.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Umbels nearly sessile. Leaves ovato-lanceolate, folded when young.

SYN. *Prunus Cerasus.* *Linn. Sp. Pl.* 679. *Sm. Fl. Brit.* 526. *Huds.* 213. *With.* 455. *Hull.* 108. *Relh.* 189, *Sibth.* 155. *Abbot.* 107.

P. avium. *With.* 456. *Hull.* 108. *Sibth.* 154, *Abbot.* 107.

Cerasus sylvestris fructu rubro, et fructu nigro.
Raii Syn. 463.

CULTIVATED plants in general are liable to so many alterations, we can scarcely say when we meet with them in a truly natural state, or which variety has the greatest claim to originality. This is the case with the wild black cherry here delineated, and the still more common red one. The first is the *P. avium* of British writers, but by no means certainly the *avium* of Linnæus, which he says has a red fruit. However that may be, there can be no doubt of this and the common red *P. Cerasus* being one species, which, like the apple, pear, gooseberry, &c. varies almost infinitely in the flavour, colour, and size of its fruit.

Both the wild cherries flower in May, when, as Linnæus elegantly expresses himself, Pomona, dressed in her snow-white garment, celebrates her nuptials. The fruit ripens in August. The tree is known by its polished ash-coloured bark. Each leaf when young is folded; and more or less downy beneath. Umbels of few flowers, produced by different buds from the leaves, always white, and with copious stamina not all in perfection at once, so that the impregnation less rarely fails than in some other fruits. Stipulæ toothed, glandular. Calyx reflexed.

This genus is no less striking an example than the *Ribes*, t. 704, of the insertion of the stamina into the calyx indicating a wholesome fruit in spite of any other sign to the contrary. Many of its species, as the *Padus* and *Lauro-cerasus*, are in all their parts, except the pulpy fruit, as poisonous as any vegetable we know. The fruit, though not always pleasant or wholesome, is never dangerous.



LACTUCA saligna.

*Least Lettuce.*SYNGENESIA *Polygamia-æqualis.*

GEN. CHAR. *Recept.* naked. *Cal.* imbricated, cylindrical, with a membranous margin. *Down* simple, on a footstalk.

SPEC. CHAR. Leaves linear ; hastate or pinnatifid; sessile; their mid-rib prickly on the back.

SYN. *Lactuca saligna.* *Linn. Sp. Pl.* 1119: *Sm. Fl. Brit.* 820. *Huds.* 338. *With.* 678. *Hull.* 175. *Relh.* 293. *Dicks. H. Sicc. fasc.* 17. 16: *L. sylvestris minima.* *Raii Syn.* 162.

THE Rev. Mr. Relhan has favoured us with this wild specimen of *Lactuca saligna* from the neighbourhood of Cambridge. It loves a calcareous soil, but is by no means frequent in any situation. The London botanists a very few years since used to find it about Pancras: Dr. Pulteney has remarked it, though rarely, in shady lanes in Dorsetshire. We know of no other places where it has been observed.

In habit and sensible qualities it agrees with other wild lettuces, but its slender osier-like form, and narrow mostly entire leaves, which, though hastate at the base, are very seldom divided or notched in any other part, readily distinguish it. The stem is brown, a little prickly. Leaves and calyx glaucous. Flowers very small, pale-yellow, opening only in sunshine, and soon fading. The seeds are beautifully furrowed, roughish ; their down finely jointed. The root is biennial, and the flowers appear in August. The mid-rib of the leaves, though naturally prickly, is occasionally smooth.



ATRIPLEX littoralis.
Grass-leaved Sea-Orache.

POLYGAMIA Monœcia.

GEN. CHAR. Hermaphr. *Cal.* in 5 divisions, inferior. *Cor.* none. *Stam.* 5. *Style* cloven. *Seed* 1, depressed.

Female. *Cal.* 2 leaved. *Cor.* none. *Style* cloven. *Seed* 1, compressed.

SPEC. CHAR. Stem herbaceous, erect. Leaves all linear, entire or toothed. Calyx of the female flowers muricated, sinuated.

SYN. *Atriplex littoralis.* *Linn. Sp. Pl.* 1494. *Huds.* 444. *With.* 275. *Hull.* 226.

A. maritima, *Scopariæ folio.* *Dill. in Raii Syn.* 153.

β. *A. serrata.* *Huds.* 444.

A. angustifolia maritima dentata. *Raii Syn.* 152.

NOT unfrequent on the eastern and southern coasts of this kingdom in a muddy soil, flowering in August and September.

Root fibrous, annual. Stem erect, angular, leafy, with upright leafy branches. Leaves alternate, on footstalks, flat, linear, blunt or sharp, various in length and breadth, whence Dillenius has introduced two most trivial varieties in *Raii Syn.* 153; their margin is sometimes quite entire, but more generally set with small scattered teeth, sometimes deeply toothed or sinuated, when it becomes the *A. serrata* of Hudson. The under side of the leaves, as well as the flowers and young branches, are covered with a meally hoariness. Spikes terminal, dense, obtuse; short when in flower, afterwards more lengthened out. We believe the hermaphrodite flowers, in this (as in most of our wild Oraches) generally do not ripen any seed. The female ones on the contrary are always fertile; their valves are after flowering much enlarged, ovate, deeply and irregularly sinuated, furnished externally with several large prominent pointed tubercles. The seed is flat, its cotyledons somewhat spiral.

The leaves turn black in drying, like many other sea plants.



TREMELLA mesenterica.

Plaited Yellow Tremella.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. *Fructification* scarcely perceptible,
in a membranous jelly-like substance.

SPEC. CHAR. Sessile, clustered, plaited, lobed,
waved, orange-coloured.

SYN. Tremella mesenterica. *Retz. Prodr.* 294.
Dicks. Crypt. fasc. 1. 14. *With. v.* 4. 79.
Hull. 309. *Sibth.* 391. *Abbot.* 271.

T. mesenteriformis. *Jacq. Misc. Austr. v.* 1. 142.
t. 13.

T. juniperina. *Huds.* 562. *Relh.* 441.

Agaricus membranaceus sinuosus, substantiâ
gelatinæ. *Raii Syn.* 21.

THIS very striking vegetable is found now and then on dead branches of Oaks or other trees, or on decayed stumps of the common Broom, and Furze. I never remember to have seen it in such plenty as in November 1799, on a hurdle fence in the higher road from Guildford to Farnham, Surrey.

It is always found on dead wood or bark, forming clusters of various dimensions, of a more or less deep orange-colour; when young, pale yellow or whitish. Its substance in moist seasons, when alone the plant is in perfection, is soft and flexible, neither clammy to the touch nor very tender. In dry weather, or when gathered and laid by, it shrinks considerably, grows darker coloured, hard and firm; but revives in moisture. It has little taste or smell. The fructification is hitherto unknown, yet it appears to be an annual plant, and consequently propagated by seed.



Handwritten text, likely a specimen label or description, partially obscured by the illustration.

TREMELLA Sabinæ.

Savine Tremella.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Fructification* scarcely perceptible, in a membranous jelly-like substance.

SPEC. CHAR. Sessile, prominent, oblong, tooth-shaped, tawny, somewhat powdery.

SYN. Tremella Sabinæ. *Dicks. Crypt. fasc. 1. 14. With. v. 4. 79. Hull. 309.*

Fungus gelatinus dentatus, Sabinæ adnascens, fulvi coloris. *Raii Syn. 16.*

MOST parasitical plants of the class *Cryptogamia* are found either upon totally dead trunks or branches, which is the case with *Fungi*, and with *Tremellæ* in general; or they are rooted, like the crustaceous Lichens, in decayed external layers of the bark. On the contrary, the production now before us springs from the live wood, under the bark, of the most vigorous branches of *Juniperus Sabina*. The branch is always swelled in that part, but otherwise healthy. The excrescences themselves are from one line to an inch long, their length and bulk decreasing exactly in proportion with the thickness of the branch from which they originate, so that some situated on the very youngest green twigs are extremely small. These never however grow larger. They all come forth together in very wet seasons only, and are oblong, of no very determinate figure, often lobed, of a brownish orange hue. Their substance is mucilaginous, their surface powdery, but destitute of any skin. Sometimes they are somewhat hollow. In dry weather they suddenly collapse and dry up.—An exactly similar substance is found on the *Juniperus communis*, and is certainly what Linnæus meant by his *T. juniperina*.

From the above circumstances I have always thought these to be mere gummy exudations, and that the powdery surface was owing to resinous particles, insoluble in water, accompanying them. No one has hitherto assented to this opinion. I propose it for the sake of enquiry only.



FUCUS ovalis.

Oval-leaved Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stem round, branched, rather rigid.
Leaves oval, very fleshy,

SYN. *Fucus ovalis*, *Huds.* 573. *With.* v. 3. 112,
Hull. 316. *Gooden, & Woodw. in Linn. Trans.*
v. 3. 116.

GATHERED last summer at Weymouth by Mr. D. Turner and Mr. Sowerby. It grows on submarine rocks, and is probably to be found only on the southern coast of England, for it is supposed what Mr. Hudson had from Scarborough might be the *vermicularis* of Lightfoot.

Fucus ovalis grows to the height of 3 or 4 inches, with a variously-branched round stem. Leaves irregularly scattered, most clustered in the upper part, spreading every way, sessile or slightly stalked; their form cylindrical, but swelling into an oval, more or less blunt; their substance very fleshy and gelatinous; their colour, like that of the whole plant, a reddish pale brown. The fructification is scattered in tubercles over the surface of the leaf, which project, and are of a darker colour; after the dispersion of the seeds they are scarcely prominent at all.

F. botryoides, described by Wulfen in *Jacq. Coll.* v. 3, 146. t. 13. f. 1, comes very near this species, and perhaps is only a variety of it with shorter and blunter leaves.

712
246.



Codium tomentosum

F U C U S tomentosus.

Downy Fucus.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond roundish, much branched, downy, green; the branches dichotomous; the points and angles obtuse.

SYN. *Fucus tomentosus.* *Huds.* 584. *With.* v. 4. 107. *Hull.* 324. *Gooden. & Woodw. in Linn. Trans.* v. 3. 195.

Spongia dichotomos teretifolia viridis. *Raii Syn.* 29.

S. dichotomos compressa, ex viridi splendens. *Dill. in Raii Syn.* 29.

THIS species seems confined to the south-west angle of our island. Mr. D. Turner and Mr. Sowerby collected it in King's Cove near Marazion, Cornwall, in June last. Sir T. Frankland has since favoured us with specimens from Exmouth. It grows on rocks and stones under the salt water, and is in some respects one of the most curious of the family to which it belongs.

The expanded base of the stem fixes it to the rocks. The whole frond is much branched, forked, roundish, but more or less compressed, of a full green colour, hollow, remarkable for being all over clothed with short fine velvet-like down, a rare circumstance in aquatic vegetables. This covering indicates some affinity to the *Ulva decorticata* described by Mr. Woodward in the 3d vol. of the Linnæan Society's Transactions, p. 55, with which also the colour and habit of our *F. tomentosus* much accord; and as no fructification to prove it a *Fucus* has yet been seen, it must still remain in doubt between those two genera;

713
586.



Andromeda polifolia.

Andromeda polifolia L. f. *Andromeda* L. f.

ANDROMEDA polifolia.

Marsh Andromeda.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* ovate; its orifice 5-cleft. *Caps.* superior, 5-celled; the partitions from the middle of the valves. *Anthæ* with 2 pores.

SPEC. CHAR. Flowers clustered, terminal. Leaves alternate, lanceolate, revolute, glaucous beneath.

SYN. *Andromeda polifolia.* *Linn. Sp. Pl.* 564. *Fl. Lapp. ed.* 2. 131. *t.* 1. *f.* 2. *Sm. Fl. Brit.* 441. *Huds.* 176. *With.* 398. *Hull.* 91. *Dicks. H. Sicc. fasc.* 6. 4.

Ledum palustre nostras, Arbuti flore. *Raii Syn.* 472.

VARIOUS of our friends situated in the north have obligingly communicated to us wild specimens of this elegant little shrub, which grows on most peat bogs in the mountainous parts of England and Ireland, and lowlands of Scotland, intermingled with *Ericæ*, *Vaccinia*, &c. flowering in June.

It is smooth in every part, branched, rigid and evergreen. Leaves alternate, upright, on short stalks, lanceolate, pointed, entire, revolute; of a bluish green above; very glaucous beneath. Small short veins are most conspicuous about the mid-rib. The flowers grow on little red clustered terminal stalks, drooping at first, but becoming erect as they fade. Their colour is a delicate rose-colour, both in the calyx and corolla. Stamina 10. *Anthæ* brown, each with 2 horns. Capsules brown, erect, with many small seeds.

Linnaeus in his elegant and instructive *Flora Lapponica* has, with his usual fancy, explained his reasons for naming this plant *Andromeda*. The passage is too long to copy, and it would require his taste to do justice to it in a translation, but nothing can be more poetical than the original.

714.
589.



Arctostaphylos uva-ursi.

Walters' Botanical Magazine

ARBUTUS *Uva ursi*.*Red trailing Arbutus.**DECANDRIA Monogynia.*

GEN. CHAR. *Cal.* 5-cleft. *Cor.* ovate; its orifice 5-cleft; its base transparent. *Berry* superior, 5-celled. *Antheræ* with 2 pores.

SPEC. CHAR. Stems procumbent. Leaves entire.

SYN. *Arbutus Uva ursi*. *Linn. Sp. Pl.* 566. *Fl. Lapp. ed.* 2. 129. *t.* 6. *f.* 3. *Sm. Fl. Brit.* 443. *Huds.* 177. *With.* 399. *Hull.* 91. *Light.* 216. *t.* 11. *f.* c, d. *Woodv. Med. Bot.* *t.* 70.

Vaccinia rubra, *foliis myrtinis crispis. Raii Syn.* 457.

A NATIVE of stony barren alpine heaths. We have received it from Durham by favour of the Rev. Mr. Harri- man and Mr. Oliver. Ray saw it growing in Lancashire, but he and Dillenius confounded it with the synonyms of *A. alpina*, see the *Synopsis*, though Dr. Richardson's account there given is sufficient to ascertain it; and if any doubt remained, Mr. Lightfoot's finding this plant, not *A. alpina*, in the isle of Mull, would remove every uncertainty. It flowers in June. The berries are said to remain all winter, untouched by birds, and the leaves are evergreen. Every part is extremely astringent. It has been much recommended as a medicine in calculous and gravelly complaints by the German practitioners, but has not been found successful in this country.

The stems are long and trailing, branched, woody, clothed with alternate, obovate, obtuse, entire, wrinkled, dark-green, shining leaves. Clusters terminal, drooping, of a few rose-coloured handsome flowers. Berries red, depressed, austere, containing the rudiments of 8 or 10 seeds, of which 4 or 5 only in general are perfected. The stamina vary from 8 to 10. The antheræ are barbed with 2 bristles. Many persons have confounded this plant with *Vaccinium Vitis Idæa*, *t.* 598, which somewhat resembles it, but in that genus the germen is inferior.

715
721.



Rubus
fruticosus.

89

1810. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

R U B U S fruticosus.

*Common Bramble or Black-berry.**ICOSANDRIA Polygynia.*

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaves generally of 5 leaflets, each on a partial footstalk, and downy beneath. Thorns all hooked. Stem angular. Calyx reflexed.

SYN. *Rubus fruticosus*. *Linn. Sp. Pl.* 707. *Sm. Fl. Brit.* 543. *Huds.* 220. *With.* 469. *Hull.* 111. *Relh.* 195. *Sibth.* 160. *Abbot.* 112.

R. major, fructu nigro. *Raii Syn.* 467.

THE Common Bramble grows in almost every hedge and thicket, and the most inexperienced botanist is supposed to know it. Yet there is a species almost equally common, which has been overlooked, and which Dr. Withering only mentions as a variety. We hope one day to illustrate it by the name of *R. corylifolius*. Schmidel represents it in his *Icones*, t. 2.

R. fruticosus has very long, trailing, or rather arching, woody, tough stems, of a purplish hue, with strongly marked angles, and beset with hooked prickles, as are also the general and partial leaf-stalks, nerves of the leaf, and the flower-stalks. Leaflets for the most part 5, all stalked, somewhat elliptical, pointed, doubly serrated; green and shining above; very white and downy beneath; rarely, on the same root, some leaves are merely hairy and of a paler green on the under side. Stipulæ bristle-shaped. Panicles terminal, downy, of many beautiful blush-coloured or pink (seldom white) flowers. Calyx downy, always reflexed both in flower and fruit. Berry of very numerous grains, of a violet black, with a mawkish sweet taste. The flowers begin to expand in July, and the fruit ripens early in September. The season of 1799 indeed was so unfavourable, that scarcely any Black-berries were to be seen ripe in October.

716.



Printed and Sold by J. B. Nichols, London.

RUBUS Chamæmorus.

Mountain Bramble, or Cloud-berry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaves simple, lobed. Stem without prickles, bearing a single flower. Segments of the calyx ovate.

SYN. *Rubus Chamæmorus.* *Linn. Sp. Pl.* 708. *Sm. Fl. Brit.* 545. *Huds.* 221. *With.* 471. *Hull.* 111. *Lightf.* 266. *t.* 13. *f.* 2. *Fl. Dan. t.* 1. *Dicks. H. Sicc. fasc.* 2. 8.

Chamæmorus. *Raii Syn.* 260. *Ger. em.* 1273.

WE have received this from the Rev. Mr. Harriman and other friends in the north of England, where it grows, as well as in Wales and Scotland, on the cloud-capped summits of the highest mountains, "whereupon," says Gerarde, who has figured the plant twice (1273 and 1420), "the people of the countrey have called them Cloud-berries." The flowers appear in June soon after the snow has dissolved, and the berries are scarcely well ripened in August before the plant is again overwhelmed with its wintry covering. The snow preserves the fruit, and is even used by the Laplanders to keep it artificially through the winter; for those people as well as the Scottish highlanders esteem the Cloud-berry one of their most grateful and useful fruits, especially on account of its long duration. Its taste is moderately acid and mucilaginous, with something of the flavour of tamarinds.

The plant is of an elegant appearance, with a creeping root, a simple stem, and plaited, mallow-like, but smooth and hardish leaves. Flowers solitary, terminal, white; the male having short abortive pistilla, and the female abortive stamina. We have not had an opportunity of verifying Dr. Solander's remark, so often copied, that the two sexes spring from one common root. The berries are of a tawny or dull orange-colour. Calyx inflexed; its segments oval or elliptical.

717.
365.



Chenopodium
urbicum.

CHENOPODIUM urbicum.

*Upright Goosefoot.**PENTANDRIA Digynia.*

GÉN. CHAR. *Cal.* 5-cleft, inferior. *Cor.* none. *Seed* 1, lenticular, invested with the closed five-sided calyx.

SPEC. CHAR. Leaves triangular, toothed. Clusters dense, very straight, long, approaching the stem, and almost leafless.

SYN. *Chenopodium urbicum.* *Linn. Sp. Pl.* 318. *Sm. Fl. Brit.* 273. *Huds.* 104. *With.* 270. *Hull.* 56. *Sibth.* 87. *Abbot.* 54.

C. erectum, foliis triangularibus dentatis, spicis e foliorum alis plurimis longis erectis tenuibus. *Dill. in Raii Syn.* 155.

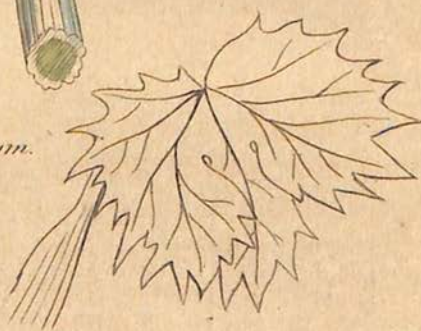
THIS is one of the most difficult to ascertain of all our British species of *Chenopodium*, and I confess myself entirely obliged to Mr. Curtis in his *Fl. Lond. fasc. 6. t. 21*, for a decisive mark to distinguish it from the *rubrum*, which consists in the ripe seeds of the latter being no larger than grains of writing sand, whereas those of the plant now before us are at least five times that size, or about as big as Rape seed. In the red or green colour of the stem and flowers both plants vary. *C. urbicum* however has the leaves in general more truly triangular, less lengthened out at the base, and not so deeply sinuated as the other; clusters more straight and erect, at length close-pressed to the stem, and almost destitute of the little leaves so copiously interspersed among the flowers of *C. rubrum*. The flowers in both are occasionally polygamous; but the calyx being universally regular, five-cleft, and not much enlarged after flowering, clearly separates *Chenopodium* from *Atriplex*.

C. urbicum is common in St. George's fields, flowering in August and September. It is annual, and thrives on dunghills and waste places about towns or villages. We have specimens from Norfolk, Oxfordshire, and Bedfordshire.

718
381.



Eryngium maritimum.



Bot. Mag. 1812

ERYNGIUM maritimum.

Sea Eryngo.

PENTANDRIA Digynia.

GEN. CHAR. *Involucrum* of many leaves. *Flowers* in little dense heads. *Receptacle* conical, scaly. *Seeds* bristly.

SPEC. CHAR. Radical leaves roundish, plaited, spinous. Heads of flowers on stalks. Scales three-cleft.

SYN. *Eryngium maritimum*. *Linn. Sp. Pl.* 337. *Sm. Fl. Brit.* 288. *Huds.* 109. *With.* 283. *Hull.* 58. *Woodv. Med. Bot. t.* 102. *Dicks. H. Sicc. fasc.* 10. 3.

E. maritimum. *Raii Syn.* 222.

COMMON in the loose sand of the sea shore, flowering in July and August.

Root long, creeping, perennial. Herb very rigid, all over glaucous, which renders it strikingly conspicuous, and every part is smooth. Stem round, furrowed, branched and bushy, about a foot high. Leaves of a roundish kidney-shape, plaited, lobed, ribbed, with spinous teeth; the radical ones are more rounded, and stand on foot-stalks. Flowers in dense blue terminal heads, each surrounded by an involucre like the leaves. Scales of the receptacle three-cleft, whereas those of *E. campestre*, *t.* 57, are simple. Petals hooked.

“Eryngo roots and Bohea tea” have been celebrated by our most witty poet Prior for their restorative or stimulating qualities. Under this idea, perhaps not ill-founded with respect to the Eryngo, these roots have been much used in domestic medicine, and are sometimes sold candied; a very elegant mode of preparing them. A shop at Colchester, Mr. Great’s, has been famous for them for several generations.



JUNGERMANNIA divaricata.
Spreading-leaved Jungermannia.

CRYPTOGAMIA Alga.

GEN. CHAR. Male flowers sessile.

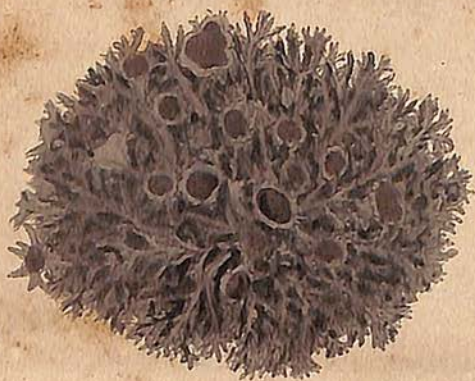
Female on a foot-stalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds unbranched, simply pinnate, filiform, flowering at the end. Leaves alternate, deeply cloven; their lobes divaricated, pointed. Sheath toothed.

FOR this minute nondescript Jungermannia we are indebted to the Rev. Mr. Francis, who found it on Holt and Edgefield heaths, Norfolk, intermixed with *J. excisa*, flowering from October to March. Specimens of the same are in the rich collection of the late Rev. H. Bryant, now in the possession of Miss Hancock of Norwich; but their name and characters were never determined, the fructification having been unknown till Mr. Francis detected it in October 1798. From his accurate figure and remarks we have ascertained the following particulars.

The shoots are simple, slender, about a quarter of an inch long, when unsupported trailing and intricate, protruding roots here and there, which sometimes spring from the leaves themselves. The leaves are alternate, of 2 pointed entire lobes, which in the older ones are remarkably divaricated. Male flowers in solitary terminal round heads. Sheath on a separate shoot, terminal, solitary, ovate, minutely toothed. Stalk slender, bearing a minute oval capsule, bursting as usual into four parts. The colour of the plant in shady situations is deep green; in exposed, dusky purple. Sometimes its dense tufts resemble small specimens of *Bryum argenteum*.

720.
2256.



Cornicularia tristis.

LICHEN tristis.

Dark radiated Lichen.

CRYPTOGAMIA Alga.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Shrubby, branched, somewhat compressed, solid, blackish; the branches acute.

Shields of the same colour, flattish, radiated.

SYN.° Lichen tristis. *Weber. Gotting. 209. t. 5.*

With. 43. Hull. 305.

L. radiatus. Huds. 559. Dicks. H. Sicc. fasc. 9. 25.

L. corniculatus. Lightf. 885.

Cornicularia tristis. Hoffm. Fl. Lich. t. 34. f. 1.

Coralloides corniculatum, Fuci tenuioris facie. Dill.

Musc. 118. t. 17. f. 37.

A NATIVE of alpine micaceous rocks in Scotland, Wales, Westmoreland, and Devonshire. It grows in dense tufts, consisting of numerous, upright, branched or forked stems, of a blackish brown, inclining to olive when wet, paler in the lower part or where sheltered from light. All the branches are solid, a little compressed, pointed, sometimes warty. The shields terminate the original stem, and are not only surmounted by numerous branches, but their margin itself is also radiated with sharp irregular points. Their disk is flattish, smooth, of the same colour as the rest of the plant, or if any thing rather blacker and more polished.

Professor Hoffman's figure is taken from a smaller and younger specimen than ours, and does not so well express the usual colour and habit as most of his admirable plates. We follow him in retaining the original specific name *tristis*, first given by Weber.

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OF THE ENGLISH NAMES

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